



सत्यमेव जयते

भारत सरकार  
Government of India  
विद्युत मंत्रालय  
Ministry of Power  
उत्तर क्षेत्रीय विद्युत समिति  
Northern Regional Power Committee

**विषय:** उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 239<sup>वीं</sup> बैठक का कार्यवृत्त।

**Subject:** Minutes of the 239<sup>th</sup> OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 239<sup>वीं</sup> बैठक दिनांक 16.01.2026 को आयोजित की गयी थी। उक्त बैठक का कार्यवृत्त उत्तर क्षेत्रीय विद्युत समिति की वेबसाइट <https://www.nrpc.gov.in> पर उपलब्ध है। यदि कार्यवृत्त पर कोई टिप्पणी हो तो कार्यवृत्त जारी करने के एक सप्ताह के अन्दर इस कार्यालय को भेजें।

The 239<sup>th</sup> meeting of the Operation Co-ordination Sub-Committee (OCC) of NRPC was held on 16.01.2026. The Minutes of this meeting has been uploaded on the NRPC website <https://www.nrpc.gov.in>. Any comments on the minutes may kindly be submitted within a week of issuance of the minutes.

**संलग्नक:** यथोपरि।

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(डी. के. मीना)  
अधीक्षण अभियंता (प्रचालन)

सेवा में,

उ.क्षे.वि.स. के प्रचालन समन्वय उप-समिति के सभी सदस्य

## List of addressee (via mail)

OCC Members for FY 2025-26			
S. No	OCC Member	Category	E-mail
1	NLDC	National Load Despatch Centre	<a href="mailto:nomination_awaited@grid-india.in">nomination awaited (mkagarwal@grid-india.in)</a>
2	NRLDC	Northern Regional Load Despatch Centre	<a href="mailto:somara.lakra@grid-india.in">somara.lakra@grid-india.in</a>
3	CTUIL	Central Transmission Utility	<a href="mailto:sandeepk@powergrid.in">sandeepk@powergrid.in</a>
4	PGCIL	Central Government owned Transmission Company	<a href="mailto:rtamc.nr1@powergrid.in">rtamc.nr1@powergrid.in</a> <a href="mailto:rtamcjammu@powergrid.in">rtamcjammu@powergrid.in</a> <a href="mailto:cpcc.nr3@powergrid.in">cpcc.nr3@powergrid.in</a>
5	NTPC	Central Generating Company	<a href="mailto:RAMESHSINGH@NTPC.CO.IN">RAMESHSINGH@NTPC.CO.IN</a>
6	BBMB		<a href="mailto:powerc@bbmb.nic.in">powerc@bbmb.nic.in</a>
7	THDC		<a href="mailto:bhagatsingh@thdc.co.in">bhagatsingh@thdc.co.in</a>
8	SJVN		<a href="mailto:svjn.cso@svjn.nic.in">svjn.cso@svjn.nic.in</a>
9	NHPC		<a href="mailto:surendramishra@nhpc.nic.in">surendramishra@nhpc.nic.in</a>
10	NPCIL		<a href="mailto:df@npcil.co.in">df@npcil.co.in</a>
11	Delhi SLDC	State Load Despatch Centre	<a href="mailto:gmsldc@delhisldc.org">gmsldc@delhisldc.org</a>
12	Haryana SLDC		<a href="mailto:cesocomml@hvpn.org.in">cesocomml@hvpn.org.in</a>
13	Rajasthan SLDC		<a href="mailto:ce.ld@rvpn.co.in">ce.ld@rvpn.co.in</a>
14	Uttar Pradesh SLDC		<a href="mailto:ceps@upslcd.org">ceps@upslcd.org</a>
15	Uttarakhand SLDC		<a href="mailto:se_slcd@ptcul.org">se_slcd@ptcul.org</a>
16	Punjab SLDC		<a href="mailto:ce-slcd@pstcl.org">ce-slcd@pstcl.org</a>
17	Himachal Pradesh SLDC		<a href="mailto:cehpsldc@gmail.com">cehpsldc@gmail.com</a>
18	DTL	State Transmission Utility	<a href="mailto:bl.gujar@dtl.gov.in">bl.gujar@dtl.gov.in</a>
19	HVPNL		<a href="mailto:cetspkl@hvpn.org.in">cetspkl@hvpn.org.in</a>
20	RRVPNL		<a href="mailto:ce.ppm@rvpn.co.in">ce.ppm@rvpn.co.in</a>
21	UPPTCL		<a href="mailto:smart.saxena@gmail.com">smart.saxena@gmail.com</a>
22	PTCUL		<a href="mailto:ce_oandmk@ptcul.org">ce_oandmk@ptcul.org</a>
23	PSTCL		<a href="mailto:ce-tl@pstcl.org">ce-tl@pstcl.org</a>
24	HPPTCL	<a href="mailto:gmprojects.tcl@hpmail.in">gmprojects.tcl@hpmail.in</a>	
25	IPGCL	State Generating Company	<a href="mailto:ncsharma@ipgcl-ppcl.nic.in">ncsharma@ipgcl-ppcl.nic.in</a>
26	HPGCL		<a href="mailto:seom2.rgtpp@hpgcl.org.in">seom2.rgtpp@hpgcl.org.in</a>
27	RRVUNL		<a href="mailto:ce.ppmcit@rrvun.com">ce.ppmcit@rrvun.com</a>
28	UPRVUNL		<a href="mailto:cgm.to@uprvunl.org">cgm.to@uprvunl.org</a>
29	UJVNL		<a href="mailto:gm_engg_ujvn@yahoo.co.in">gm_engg_ujvn@yahoo.co.in</a>
30	HPPCL		<a href="mailto:gm_generation@hppcl.in">gm_generation@hppcl.in</a>
31	PSPCL	State Generating	<a href="mailto:ce-ppr@pspcl.in">ce-ppr@pspcl.in</a>

OCC Members for FY 2025-26			
S. No	OCC Member	Category	E-mail
		Company & State owned Distribution Company	
32	DHBVN	State owned Distribution Company (alphabetical rotational basis/nominated by state govt.)	<b>nomination awaited</b> ( <a href="mailto:md@dhbvn.org.in">md@dhbvn.org.in</a> )
33	Ajmer Vidyut Vitran Nigam Ltd.		<b>nomination awaited</b> ( <a href="mailto:md.avvnl@rajasthan.gov.in">md.avvnl@rajasthan.gov.in</a> )
34	Purvanchal Vidyut Vitaran Nigam Ltd.		<b>nomination awaited</b> ( <a href="mailto:mdpurvanchalvnl@gmail.com">mdpurvanchalvnl@gmail.com</a> )
35	UPCL		<a href="mailto:cgmupcl@yahoo.com">cgmupcl@yahoo.com</a>
36	HPSEB		<a href="mailto:cesysophpsebl@gmail.com">cesysophpsebl@gmail.com</a>
37	Prayagraj Power Generation Co. Ltd.	IPP having more than 1000 MW installed capacity	<a href="mailto:sanjay.bhargava@tatapower.com">sanjay.bhargava@tatapower.com</a>
38	Aravali Power Company Pvt. Ltd		<a href="mailto:amit.hooda01@apcpl.co.in">amit.hooda01@apcpl.co.in</a>
39	Apraave Energy Ltd.,		<a href="mailto:niraj.gupta@apraava.com">niraj.gupta@apraava.com</a>
40	Talwandi Sabo Power Ltd.		<a href="mailto:arun.kumar@vedanta.co.in">arun.kumar@vedanta.co.in</a>
41	Nabha Power Limited		<a href="mailto:Durvesh.Yadav@larsentoubro.com">Durvesh.Yadav@larsentoubro.com</a>
42	MEIL Anpara Energy Limited		<a href="mailto:arun.tholia@meilanparapower.com">arun.tholia@meilanparapower.com</a>
43	Rosa Power Supply Company Ltd		<a href="mailto:Suvendu.Dey@relianceada.com">Suvendu.Dey@relianceada.com</a>
44	Lalitpur Power Generation Company Ltd		<a href="mailto:avinashkumar.ltp@lpgcl.com">avinashkumar.ltp@lpgcl.com</a>
45	MEJA Urja Nigam Ltd.		<a href="mailto:amitkumarmaithil@ntpc.co.in">amitkumarmaithil@ntpc.co.in</a>
46	Adani Power Rajasthan Limited		<a href="mailto:raguvendral.dewra@adani.com">raguvendral.dewra@adani.com</a>
47	JSW Energy Ltd. (KWHEP)		<a href="mailto:roshan.zipta@jsw.in">roshan.zipta@jsw.in</a>
48	Transition Cleantech Services Private Limited	IPP having less than 1000 MW installed capacity (alphabetical rotational basis)	<b>nomination awaited</b> ( <a href="mailto:kswamidoss@evrenenergy.com">kswamidoss@evrenenergy.com</a> )

OCC Members for FY 2025-26			
S. No	OCC Member	Category	E-mail
49	UT of J&K	From each of the Union Territories in the region, a representative nominated by the administration of the Union Territory concerned out of the entities engaged in generation/transmission/distribution of electricity in the Union Territory.	<a href="mailto:sojppdd@gmail.com">sojppdd@gmail.com</a>
50	UT of Ladakh		<a href="mailto:cepdladakh@gmail.com">cepdladakh@gmail.com</a>
51	UT of Chandigarh		<a href="mailto:seelo-chd@nic.in">seelo-chd@nic.in</a>
52	NVVN	Nodal Agency appointed by the Government of India for coordinating cross-border power transactions	<a href="mailto:ceonvvn@ntpc.co.in">ceonvvn@ntpc.co.in</a>
53	Tata Power Delhi Distribution Limited	Private Distribution Company in region (alphabetical rotational basis)	<b>nomination awaited</b> ( <a href="mailto:sandeep.k@tatapower-ddl.com">sandeep.k@tatapower-ddl.com</a> )
54	Gurgaon Palwal Transmission Limited	Private transmission licensee (nominated by central govt.)	( <a href="mailto:lokendra.ranawat@indigrid.com">lokendra.ranawat@indigrid.com</a> )
55	PTC India Limited	Electricity Trader (nominated by central govt.)	<b>nomination awaited</b> ( <a href="mailto:bibhuti.prakash@ptcindia.com">bibhuti.prakash@ptcindia.com</a> )
56	ReNew Power Private Limited	RE Generating Company having more than 1000 MW installed capacity	<a href="mailto:sumant@renew.com">sumant@renew.com</a>
57	NTPC Green Energy Limited		<a href="mailto:rajivgupta@ntpc.co.in">rajivgupta@ntpc.co.in</a>
58	Azure Power India Pvt. Limited		<a href="mailto:sunil.gupta@azurepower.com">sunil.gupta@azurepower.com</a>
59	Avaada Energy Private Limited		<a href="mailto:kishor.nair@avaada.com">kishor.nair@avaada.com</a>
60	Adani Green Energy Limited		<a href="mailto:chaitanya.sahoo@adani.com">chaitanya.sahoo@adani.com</a>

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## उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 239<sup>वीं</sup> बैठक का कार्यवृत्त

The 239<sup>th</sup> OCC meeting of NRPC was held on 16.01.2026 at NTPC Dadri.

MS, NRPC welcomed all the participants of NR power utilities to the 239<sup>th</sup> OCC Meeting. She appreciated NTPC Dadri for hosting the meeting at NTPC Dadri, which is a key power generating station with thermal, gas, solar and upcoming BESS facilities also. She congratulated NTPC Dadri for completing successful trial run of 24 hours at 500 MW each for both of their 490 MW units.

She apprised the forum about the rising NR peak demand, which has reached 75 GW (on 9<sup>th</sup> January, 2026), and urged SLDCs to ensure preparedness through proper voltage, reactive power, and system management.

She highlighted the concern of TTC/ATC limit violations in Rajasthan and Uttarakhand, and voltage issues in J&K, stressing the need for system augmentation.

She further added that high voltage issues in Punjab, Haryana, and Delhi were observed due to inadequate reactive power absorption by generators during night time. She requested respective SLDCs to ensure that ideal absorption as per grid requirement and capability curve of the machine, so that the voltage improves.

She informed about the commissioning of 765kV Khetri-Narela transmission line and the persistent RE curtailment issues in NR region, which can be reduced by faster transmission line commissioning and exploring solutions by all the stakeholders together with NRPC and NRLDC.

She also mentioned the multiple tripping incidents and many near-miss events, which have occurred, need urgent attention on cleaning of insulators, protection settings etc. She concluded by informing all the stakeholders about AGC implementation workshop conducted by NRLDC, which has received positive feedback from all, so she encouraged implementing AGC in Intra state generating station in their control area, noting the quick payback period.

List of participants of the meeting is attached as Annexure-A.P.

खण्ड-क:उ.क्षे.वि.स.

PART-A:NRPC

### A.1. Confirmation of Minutes

Minutes of the 238<sup>th</sup> OCC meeting were issued on 05.01.2026.

In regard to agenda No. 13, the NRLDC representative requested OCC forum to modify decision as mentioned below:

*“OCC forum advised NRLDC/NLDC to avoid the delay in the issuance of codes for opening and closing of transmission lines/elements and after issuance of the charging code, all the entities to work in a coordinated manner to improve system efficiency.”*

**to be replaced with**

*“OCC forum asked all the entities to work in a coordinated manner to improve system efficiency.”*

**Decision of OCC Forum:**

*OCC Forum confirmed the minutes of the 238<sup>th</sup> OCC meeting with the above modification.*

**A.2. Status of action taken on decisions of 238<sup>th</sup> OCC meeting of NRPC**

A.2.1. MS, NRPC conveyed that the agenda has been taken to track the status of action taken as per the decision of the last meeting. Accordingly, issues may be resolved at the earliest.

A.2.2. Concerned utilities submitted the status of action taken.

**Decision of OCC Forum:**

*Concerned utilities submitted the status of action taken and the same has been complied as **Annexure-A.I**.*

**A.3. Review of Grid operations of December 2025**

**Anticipated vis-à-vis Actual Power Supply Position (Provisional) for December 2025**

Reasons submitted by States/UTs for significant deviation of actual demand from anticipated figures during the month of December 2025 are as follows:

- **Himachal Pradesh**

Anticipation in Energy Requirement and Peak Demand with respect to Himachal Pradesh for the month of December, 2025 was on the lower side due to dry weather conditions and less heating load.

- **Punjab**

Actual energy requirement and actual maximum demand are more than anticipated energy requirement and anticipated maximum demand, respectively, because of dry spell (increase in agriculture demand) in the month of December 2025 in the state of Punjab.

- **Uttar Pradesh**

Actual energy consumption and maximum demand were higher than anticipated due to the earlier onset of fog and harsher winter conditions. In December 2024, similar weather patterns emerged only toward the end of the month.

#### A.4. Maintenance Programme of Generating Units and Transmission Lines

A.4.1. The maintenance programme of generating units and transmission lines for the month of February 2026 was deliberated in the meeting on 13.01.2026.

#### A.5. Anticipated Power Supply Position in Northern Region for February 2026

The updated anticipated Power Supply Position for February 2026 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
CHANDIGARH	Availability	110	350	No Revision submitted
	Requirement	152	296	
	Surplus / Shortfall	-42	54	
	% Surplus / Shortfall	-27.6%	18.2%	
DELHI	Availability	3110	5200	09-Jan-26
	Requirement	2300	5200	
	Surplus / Shortfall	810	0	
	% Surplus / Shortfall	35.2%	0.0%	
HARYANA	Availability	5400	11500	No Revision submitted
	Requirement	4204	11074	
	Surplus / Shortfall	1196	426	
	% Surplus / Shortfall	28.4%	3.8%	
HIMACHAL PRADESH	Availability	1147	2220	07-Jan-26
	Requirement	1170	2280	
	Surplus / Shortfall	-23	-60	
	% Surplus / Shortfall	-2.0%	-2.6%	

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	Availability	980	2450	
J&K and LADAKH	Requirement	2020	3656	No Revision submitted
	Surplus / Shortfall	-1040	-1206	
	% Surplus / Shortfall	-51.5%	-33.0%	
PUNJAB	Availability	3740	9090	15-Jan-26
	Requirement	4357	10970	
	Surplus / Shortfall	-617	-1880	
	% Surplus / Shortfall	-14.2%	-17.1%	
RAJASTHAN	Availability	8770	19530	15-Jan-26
	Requirement	9940	20100	
	Surplus / Shortfall	-1170	-570	
	% Surplus / Shortfall	-11.8%	-2.8%	
UTTAR PRADESH	Availability	10220	20840	6-Jan-26
	Requirement	10080	20840	
	Surplus / Shortfall	140	0	
	% Surplus / Shortfall	1.4%	0.0%	
UTTARAKHAND	Availability	1325	2475	03-Jan-26
	Requirement	1333	2500	
	Surplus / Shortfall	-8	-25	
	% Surplus / Shortfall	-0.6%	-1.0%	
NORTHERN REGION	Availability	34802	77400	
	Requirement	35556	73500	
	Surplus / Shortfall	-754	3900	
	% Surplus / Shortfall	-2.1%	5.3%	

- A.5.1. Representative of Punjab informed that there was an unplanned outage of one of their units (GATP- 270 MW) which will be revived in March'26 and further they will purchase from the market to meet any shortfall.
- A.5.2. CGM (SO), NRLDC mentioned that around 3000 MW power out of the total 4000 MW in NR region is being purchased by Punjab from the market on daily basis which may not be economical and further shortage issues may also arise. He suggested that Punjab SLDC to sign a bilateral agreement for 2-3 months.
- A.5.3. Rajasthan SLDC representative informed that they are planning to meet the shortfall through short-term contracts in the market.
- A.5.4. MS, NRPC enquired whether sufficient power is available in the market for SLDCs to make the arrangements.
- A.5.5. CGM (SO), NRLDC stated that, in terms of power purchase from the market, Punjab is purchasing the highest amount of power, followed by Rajasthan. Therefore, Punjab and Rajasthan to explore banking/bilateral arrangement and avoid dependency on power market.
- A.5.6. MS, NRPC stated that Punjab & Rajasthan can make arrangements with UP since it has surplus power.
- A.5.7. CGM (SO), NRLDC stated that to meet its demand presently Rajasthan drawl from grid is exceeding its ATC limit. He requested Rajasthan STU to increase internal generation and augment the transmission network to avoid violations.
- A.5.8. Rajasthan SLDC representative informed that the issue is being observed during ramp-up time and they have taken up with Urja Vikas for the reshuffling of the load pattern to resolve the issue.
- A.5.9. MS, NRPC suggested Rajasthan SLDC to consider operating the Dholpur GPS during peak hours. MS, NRPC suggested Rajasthan SLDC to apprise the higher authorities that this will lead to reduction in reactive power charges and DSM Over drawl charges and further there will be no ATC/TTC violation.
- A.5.10. CGM (SO), NRLDC asked J&K SLDC to inform the reason for the shortage of 51% in energy.
- A.5.11. EE(O), NRPC informed that as per information received from JK SLDC they are having banking arrangement of 62 MU with UP SLDC and 135 MU round the clock with Punjab SLDC to meet their shortfall for February 2026.
- A.5.12. CGM (SO), NRLDC asked how Punjab would provide power to J&K, given that Punjab itself faces shortages during the morning and evening peak hours.
- A.5.13. Punjab SLDC informed that they have a tie-up with J&K during the summer season for meeting paddy load requirements. Accordingly, whenever surplus power is available, they supply it to J&K, and in case of a shortfall, they purchase power from the market and supply it to J&K during that period.

A.5.14. MS, NRPC advised the respective SLDCs to make requisite arrangements in advance to meet the demand, as power may not be available on exchanges during peak hours.

#### **A.6. Follow-up of issues from various OCC Meetings - Status update**

A.6.1. The updated status of agenda items is enclosed at **Annexure-A.II**.

A.6.2. EE(O), NRPC informed that during the 238th OCC Meeting, all SLDCs were requested to coordinate with the DISCOMs in their respective control areas for identification of feeders for ADMS implementation and submit the list of such feeders to the NRPC Secretariat within fifteen days. However, no information has been received so far in this regard.

A.6.3. OCC Forum requested all SLDCs to discuss the matter in State OCC meetings or similar forum at state level and coordinate with the respective DISCOMs for identification of feeders for ADMS implementation. SLDCs were also advised to identify the feeders based on their operational experience, in cases where the list is not provided by the respective DISCOMs and share the same with their DISCOMs for their consent and thereafter submit it to the NRPC Secretariat and NRLDC.

A.6.4. With respect to the availability of ERS towers, MS, NRPC advised all transmission licensees to take necessary measures to ensure maintenance of the minimum prescribed number of ERS towers as per the prescribed guidelines of Ministry of Power/CEA.

#### **A.7. NR Islanding scheme**

A.7.1. EE(O), NRPC apprised the forum that in 238<sup>th</sup> OCC, Delhi SLDC and RVPN were advised to review their islanding scheme based on their updated network configuration.

A.7.2. Delhi SLDC representative informed that the revised islanding scheme has been prepared and submitted to NRPC Sectt. and NRLDC for their comments.

A.7.3. EE(O), NRPC asked RVPN to provide an update on the review of RAPS islanding scheme.

A.7.4. Rajasthan SLDC representative informed that the status would be updated shortly upon receipt of updates from the concerned team.

A.7.5. Punjab SLDC representative informed that DPRs of both the NPL Rajpura islanding scheme and RSD islanding scheme have been received from PSTCL and the same is under examination.

#### **A.8. Coal Supply Position of Thermal Plants in Northern Region**

A.8.1. In the meeting, NRPC representative apprised the forum about the coal stock position of generating stations in Northern Region during the current month (till 10<sup>th</sup> January 2026).

A.8.2. The coal stock position of generating stations in Northern Region, having critical stock, during first ten days of January 2026 is NIL.

### **A.9. Periodic Testing of Generators and FACTS/HVDC Devices (Agenda by NRPC Sectt.)**

A.9.1 NRPC representative stated that Regulation 40 (1) of CERC (IEGC) Regulations, 2023 stipulate that there shall be periodic tests, as required under clause (3) of this Regulation, carried out on power system elements for ascertaining the correctness of mathematical models used for simulation studies as well as ensuring desired performance during an event in the system.

A.9.2 The tests shall be performed once every five (5) years or whenever major retrofitting is done. If any adverse performance is observed during any grid event, then the tests shall be carried out even earlier, if advised by SLDC or RLDC or NLDC or RPC, as the case may be.

A.9.3 Further, Regulation 40(1)(b) stipulate that "All equipment owners shall submit a testing plan for the next year to the concerned RPC by 31st October to ensure proper coordination during testing as per the schedule. In case of any change in the schedule, the owners shall inform the concerned RPC in advance."

A.9.4 Extract of IEGC 2023 clause 40,

#### *"40. PERIODIC TESTING*

*(1) There shall be periodic tests, as required under clause (3) of this Regulation, carried out on power system elements for ascertaining the correctness of mathematical models used for simulation studies as well as ensuring desired performance during an event in the system.*

#### *(2) General provisions*

*(a) The owner of the power system element shall be responsible for carrying out tests as specified in these regulations and for submitting reports to NLDC, RLDCs, CEA and CTU for all elements and to STUs and SLDCs for intra-State elements.*

***(b) All equipment owners shall submit a testing plan for the next year to the concerned RPC by 31st October to ensure proper coordination during testing as per the schedule. In case of any change in the schedule, the owners shall inform the concerned RPC in advance.***

*(c) The tests shall be performed once every five (5) years or whenever major retrofitting is done. If any adverse performance is observed during any grid event,*

then the tests shall be carried out even earlier, if so advised by SLDC or RLDC or NLDC or RPC, as the case may be.

(d) The owners of the power system elements shall implement the recommendations, if any, suggested in the test reports in consultation with NLDC, RLDC, CEA, RPC and CTU.

### (3) Testing requirements

The following tests shall be carried out on the respective power system elements:

TABLE 9 : TESTS REQUIRED FOR POWER SYSTEM ELEMENTS

Power System Elements	Tests	Applicability
Synchronous Generator	<ol style="list-style-type: none"> <li>(1) Real and Reactive Power Capability assessment.</li> <li>(2) Assessment of Reactive Power Control Capability as per CEA Technical Standards for Connectivity</li> <li>(3) Model Validation and verification test for the complete Generator and Excitation System model including PSS.</li> <li>(4) Model Validation and verification of Turbine/Governor and Load Control or Active Power/ Frequency Control Functions.</li> <li>(5) Testing of Governor performance and Automatic Generation Control.</li> </ol>	Individual Unit of rating 100MW and above for Coal/lignite, 50MW and above gas turbine and 25 MW and above for Hydro.
Non synchronous Generator (Solar/Wind)	<ol style="list-style-type: none"> <li>(1) Real and Reactive Power Capability for Generator</li> <li>(2) Power Plant Controller Function Test</li> <li>(3) Frequency Response Test</li> <li>(4) Active Power Set Point change test.</li> <li>(5) Reactive Power (Voltage / Power Factor / Q) Set Point change test</li> </ol>	Applicable as per CEA Technical Standards for Connectivity.
HVDC/FACTS Devices	<ol style="list-style-type: none"> <li>(1) Reactive Power Controller (RPC) Capability for HVDC/FACTS</li> <li>(2) Filter bank adequacy assessment based on present grid condition, in consultation with NLDC.</li> <li>(3) Validation of response by FACTS devices as per settings.</li> </ol>	To all ISTS HVDC as well as Intra-State HVDC/FACTS, as applicable

A.9.5 In accordance with the above, Generators and HVDC/FACT owners were supposed to furnish the Testing schedule for the next five financial years.

A.9.6 The procedure for testing is available at the NLDC website at <https://posoco.in/wpcontent/uploads/2023/09/Final-Procedure-of-Periodic-Testing-for-Power-SystemElements-submitted-to-CERC.pdf>. This may be used for testing.

A.9.7 In view of this, a Google sheet was prepared and it was requested that the testing plan for the next five financial years may be updated in the sheet provided at the earliest as per the requirement of IEGC 2023 and the decision of 73rd NRPC meeting.

A.9.8 EE(O), NRPC informed that a letter has been issued in this regard to all the state generators and NR ISTS renewables for submitting their testing schedule for the

next five financial years. All SLDCs were requested to take up this with all the generators in their control area for providing of information at the earliest.

A.9.9 MS NRPC asked Generators and HVDC/FACT owners to furnish the testing schedule for 2025-26 in the format attached at Annexure-A.IV.a to [seo-nrpc@nic.in](mailto:seo-nrpc@nic.in).

A.9.10 EE(O), NRPC stated that, as per IEGC 2023, the testing schedule for the next financial year was required to be submitted by 31st October 2025. While the testing schedule has been received from NTPC, it is still awaited from the intra-state generating stations of Rajasthan and UPRVUNL.

A.9.11 List of Generating station from which a periodic testing schedule is not received is attached as Annexure-A.III.

A.9.12 Rajasthan SLDC representative informed that testing is planned to be conducted through the OEM (BHEL) for the first time. As conveyed by BHEL, only three out of the five modules are currently available; therefore, details will be submitted and testing undertaken once all five modules are ready.

A.9.13 MS, NRPC enquired about the testing arrangements being followed by generators such as NTPC and HP, which have the same OEM (BHEL).

A.9.14 NTPC representative informed that testing is being carried out in-house in accordance with the standard operating procedure developed at the corporate level.

A.9.15 HP SLDC representative informed that the testing is being carried out by the OEM (BHEL), and that the observed disparity in the available models may be attributable to differences in the types of generators.

A.9.16 MS, NRPC requested RVPN to provide tentative timelines for readiness of all the five modules by the OEM and the schedule for conducting the requisite testing.

A.9.17 MS, NRPC asked all the SLDCs and ISTS Generating Stations whose testing schedule is yet to be received to furnish Testing schedule at the earliest in the format attached at Annexure-A.IV.a of agenda to [seo-nrpc@nic.in](mailto:seo-nrpc@nic.in).

#### **Decision of OCC Forum:**

*OCC forum asked all the SLDCs and ISTS Generating Stations whose testing schedule is yet to be received to furnish the testing schedule at the earliest in the format attached at Annexure-A.IV.a of the agenda to [seo-nrpc@nic.in](mailto:seo-nrpc@nic.in).*

#### **A.10. Monthly Review of LGBR for the next 11 months (Availability & Requirement) (Agenda by NRPC Secretariat)**

A.10.1. EE(O), NRPC informed the forum that in 236th OCC meeting matter regarding monthly Review of LGBR for the next 11 months (Availability & Requirement) was discussed and it was agreed that NR States/UTs shall submit the data for the monthly Review of LGBR for the next 11 months including the break-up of sources through which demand is proposed to be met, such as ISGS, internal generation,

bilateral arrangements, DAM/RTM transactions, or other contracts, shall also be provided.

- A.10.2. EE(O), NRPC informed that in 237th OCC meeting, OCC forum requested NR States/UT's to submit the data for monthly Review of LGBR for the next 11 months in the Google sheet to be shared by NRPC Secretariat.
- A.10.3. EE(O), NRPC informed that details have been received from all the states of NR except J&K and Chandigarh.
- A.10.4. MS, NRPC suggested that google sheet may be shared regularly in every OCC with SLDCs so that the data can be updated by all the states in the sheet monthly and any revised details due to short-term tie-ups also may be updated.

**Decision of OCC Forum:**

*NR States/UTs to submit LGBR data for the next 11 months in the Google Sheet shared by the NRPC Secretariat and update it monthly for any revisions due to short-term arrangements.*

**A.11. Data Collection for Monitoring Pan-India Captive Generating Capacity (Agenda by NRPC Secretariat)**

- A.11.1. EE(O), NRPC apprised the forum that GM division, CEA has informed that in the meeting taken by the Secretary (Power) on 17.12.2025, it was decided that the State Chief Electrical Inspectors (CEIs) / State Load Despatch Centres (SLDCs) shall act as the nodal agencies for the collection of Captive Generation & Open Access data for their respective States.
- A.11.2. Further, in the said meeting it was decided that the Regional Power Committees (RPCs) shall act as the nodal coordinating agencies for consolidation and compilation of the data at the regional level and shall forward the same to the GM Division, CEA, for All-India level compilation on a monthly basis.
- A.11.3. In this regard, all the SLDCs of the NR Region have been requested to kindly submit the requisite details (in the attached format) for each month (starting from December 2025 onwards) by the 7th of the following month in the format attached at Annexure-A.V of agenda to the NRPC Secretariat at [seo-nrpc@nic.in](mailto:seo-nrpc@nic.in).
- A.11.4. EE(O), NRPC apprised that information/data received from the SLDC's are not in the requisite format as desired by CEA. Hence compilation of the same is difficult.
- A.11.5. EE(O), NRPC apprised that the information/data received from the SLDC's is not in the format prescribed by the CEA, making the compilation of data a challenge.
- A.11.6. MS, NRPC asked NRPC Sectt. to convene a meeting of SLDC's with GM Division, CEA for any clarification regarding the Captive and Open Access format.

**Decision of OCC Forum:**

- a) *NRPC Sectt. to convene a meeting this month of SLDCs with GM Division, CEA for clarification regarding the Captive and Open Access format.*
- b) *SLDCs to submit the requisite information about Captive Generation & Open Access data for their respective States for each month by the 7<sup>th</sup> of the following month as the CEA-prescribed format.*

## **A.12. Non-compliance of CERC Suo-Motu order 9/SM/2024 – Declaration of Peak hours DC less than off-peak hours (Agenda by NRPC Secretariat)**

- A.12.1. EE(C), NRPC apprised the provisions of CERC suo-moto order dated 05.10.2025 in Petition No. 9/SM/2024 that the generating stations shall not be permitted to declare Peak hours DC less than off-peak hours DC, other than in cases of forced outage or partial outage. Grid India shall strictly monitor the same. In case a generating station provides less DC during peak hours of the day than off-peak hours, the DC for such generating station for the purpose of fixed charges shall be taken as the lower of the two.
- A.12.2. NTPC submitted that in Gas Stations, DC remains slightly high, during off-peak hours, due to temperature variation. Further, NTPC submitted some instances of forced outage/ unit tripping or partial outage of Rihand Power Station, Tanda Power Station, Dadri Coal Power Station, Jhajjar Power Station, resulting in the declaration of lower average DC during peak hours than off-peak hours.
- A.12.3. EE(C), NRPC further informed that, since Grid-India maintains real-time outage information of generators, suitable provisions could be incorporated in WBES to monitor and flag non-compliance with this order. It was also stated that restricting the DC during off-peak hours in the REA by the NRPC Secretariat is not feasible because forced outage, unit tripping, or partial outage details for the past month are not available at the time of REA preparation. Moreover, as the REA is prepared strictly on the schedule data provided by NRLDC, any suo-moto modification of DC data lies outside the purview of the RPC Secretariat.
- A.12.4. Further, in case a generating station provides less DC during peak hours of the day than off-peak hours—excluding periods of forced or partial outages—the generating companies were advised to consider the lower of the two DCs for the purpose of fixed charges recovery in its billing to the beneficiaries for existing cases as well as future cases.
- A.12.5. NRLDC representative stated that the issue is being handled by NRLDC on an as-and-when basis. Currently, WBES software does not have a provision for the generation of periodic reports

### ***Decision of OCC Forum:***

- a) Generating Stations were advised to comply with the provisions of CERC suo-moto order dated 05.10.2025 in Petition No. 9/SM/2024 and not declare Peak hours DC less than off-peak hours DC, other than in cases of forced outage or partial outage.
- b) Grid-India shall strictly monitor the same. For this purpose, a suitable internal mechanism could be devised by Grid-India.
- c) In case a generating station provides less DC during peak hours of the day than off-peak hours—excluding periods of forced or partial outages—the generating companies were advised to consider the lower of the two DCs for the purpose of fixed charges recovery in its billing to the beneficiaries for existing cases as well as future cases.

### **A.13. Reducing load on 400kV Tikrikalan-Jhatikara and 400kV Tikrikalan-Bawana Lines at 400kV S/Stn Tikrikalan (Erstwhile Mundka) (agenda by DTL)**

- A.13.1. EE(O), NRPC apprised forum that DTL has informed that 400kV Substation Tikrikalan is connected through 400kV Transmission lines to 400kV Substation Jhatikara, Jhajjar and Bawana. The load on 400kV Jhatikara and Bawana lines associated with 400kV Tikrikalan Substation is very high, almost on a daily basis.
- A.13.2. Moreover, DTL has mentioned that in the winter months of November and December, load is touching 1100MW on each circuit i.e. total of 2200MW on the double circuit line of both Tikrikalan to Jhatikara and Tikrikalan to Bawana.
- A.13.3. DTL has also submitted that any tripping of one circuit in such high load conditions result in loading of nearly 2000 MW on a single circuit and damages various equipment, clamps and conductors of the line, which results in reduction of life of the equipment and transmission line.
- A.13.4. Currently, the power from Jhatikara substation is being routed to Depalpur, Abdullapur, Bhiwani and Bahadurgarh substations in Haryana through TikrikalanBawana substations. As such a large area of load is being fed through Tikrikalan S/Stn and the other 400kV Circuits in this region are remaining underutilized.
- A.13.5. DTL has submitted that it is not possible to carry out the work on towers and transmission lines during night hours in winters due to low light, foggy and dew conditions. Further, the work in the yard also gets difficult during night hours in winter due to dew and foggy conditions.
- A.13.6. In view of the above, DTL has requested that the matter of optimal loading of 400kV lines in the region may be discussed so that high loading of Tikrikalan to Jhatikara and Tikrikalan to Bawana lines may be addressed and proper maintenance work may be carried out on these lines during these winter months.
- A.13.7. NRLDC representative stated that there is a 400kV double-circuit line from Jhatikara to Mundaka and from Mundaka to Bawana, with each circuit carrying 1000–1200

MW. Around 80% sensitivity of one ckt on another ckt is observed as per simulation studies. Under N-1 contingency, the loading on remaining circuit may reach up to 2100 MW. Loading of lines is also impacted by generation at Bawana Gas.

A.13.8. NRLDC also mentioned that as 765kV Jhatikara is connected to 765kV Bikaner via Khetri, loading of lines from Jhatikara is high during day-time and accordingly, line shutdowns are being facilitated during evening period similar to other RE complex shutdown requests.

A.13.9. CGM(SO), NRLDC highlighted that Powergrid carries out maintenance activities on its ISTS lines in RE complex during night hours. DTL was advised to adopt a similar practice and schedule maintenance-related work during non-solar hours in their substations handling RE power.

A.13.10. CGM(SO), NRLDC asked DTL to submit a written proposal from their side for any short-term measure for relief during the summer 2026.

A.13.11. In the long term, CGM(SO), NRLDC suggested DTL may plan additional transmission lines for drawl by Delhi jointly with CTUIL and also plan an alternate substation so that loading in these can be reduced.

A.13.12. CTUIL mentioned that commissioning of 400kV Jhatikara-Dwarka D/c line & 765kV Khetri-Narela D/c line as well as augmentation of 5th ICT at Jhatikara would marginally reduce the loading of 400kV Jhatikara-Mundka D/c line.

A.13.13. CTUIL apprised the 400kV Gopalpur and Tikri Khurd S/s are planned as part of intra state schemes with scheduled commissioning in 2027-28. Further, Upgradation of 220 kV Rohtak Road substation of BBMB to 400 kV level is also under planning in intra state. Expedite implementation of above substations will relieve the loading of 400/220kV ICTs. Further a new S/s at Mandi is also planned in ISTS by 2033-34 as part of Resource Adequacy Plan for Transmission System of Delhi up to the year 2033-34.

#### **Decision of OCC Forum:**

- a) *OCC forum was of the view that the line loading may be relieved slightly with the commissioning of 400kV Jhatikara-Dwarka D/C.*
- b) *DTL needs to adopt maintenance practice of carrying out maintenance during non-solar hours, which is already being done in Rajasthan at both ISTS and intrastate level.*
- c) *Forum further asked DTL to submit a written proposal from their side for any short-term measures for relief during summer 2026.*

**A.14. Diversion of 400/220 kV, 315 MVA ICT Siemens make (owned by PGCIL) stored at 400kV S/stn Bawana, DTL to 400 kV S/stn Bamnauli, DTL to meet the Urgent requirement (Agenda by DTL)**

- A.14.1. DTL apprised forum that the 400/220 kV Bamnauli substation of DTL is a vital installation in the Delhi Transmission ring, which was commissioned in the year 2000. This substation has an installed transformation capacity of 1315 MVA (2x500+1x315 MVA ICTs) till May 2025. However, one no. 315 MVA, 400/220 KV ICT No.-4, suffered a catastrophic failure and was damaged on 01.06.2025. This incident has severely impacted the transformation capacity of this substation. With the loss of above said ICT, the substation is now functioning below its intended capacity to meet the peak load demand of the area.
- A.14.2. DTL stated that 400 kV Substation Bamnauli is presently running at reduced capacity of 1000 MVA against an installed transformation capacity of 1315 MVA (2x500+1x315 MVA ICTs). In case of any outage in one existing 500 MVA Transformer at Bamnauli, the complete network of South West Delhi may get affected and the situation will be more difficult during the peak summer season.
- A.14.3. DTL also mentioned that 400kV Bamnauli, caters the power demand of several vital 220 kV substations, including DIAL(Indira Gandhi International Airport), Pappankalan-1(PPK-1), PPK-2, PPK-3 and Naiafgarh. Therefore, it is a primary supply source for South West Delhi. Due to the non-availability of 315/500 MVA ICT, the N-1 criteria for reliability is compromised. This has created a critical vulnerability in the system, particularly during contingencies in peak summer loads.
- A.14.4. DTL informed that PGCIL has augmented one no. of 315 MVA ICT with 500 MVA ICT at 400 kV Bawana, DTL. Further, vide letter dated 26.06.25, DTL requested PGCIL to provide/divert the dismantled 315MVA ICT from 400kV Bawana to 400kV Bamnauli (DTL) to meet the urgent requirement.
- A.14.5. Further, during the meeting in the office of Hon'ble Chief Secretary, GNCTD, dated 23.12.2025, the requirement of DTL and submissions of PGCIL were deliberated at length. It was deliberated that all steps should be taken to ensure the reliability of the National Capital in the upcoming summer 2026. In the said meeting, representative of PGCIL principally agreed to divert the 315MVA ICT, Siemens make (owned by PGCIL, stored at 400kV Bawana, DTL) to 400kV Bamnauli, DTL.
- A.14.6. Powergrid apprised forum that they have in-principle agreed for the diversion of the 315MVA ICT, Siemens make (owned by PGCIL, stored at 400kV Bawana, DTL) to 400kV Bamnauli, DTL, however, the modalities for diversion are under approval at their higher level.

**Decision of OCC Forum:**

*OCC forum noted the diversion of 400/220 kV, 315 MVA ICT Siemens make (owned by PGCIL) stored at 400kV S/stn Bawana, DTL to 400 kV S/stn Bamnauli, DTL to address the vulnerability in the DTL system, particularly during contingencies in peak summer loads.*

**A.15. Non-commissioning of AGC at Parbati-II HEP (800 MW) due to non-availability of**

### **OPGW (Agenda by NHPC)**

- A.15.1 NHPC submitted that Parbati-II HEP is an 800 MW hydroelectric generating station, the Commercial Operation Date (COD) of which has been declared w.e.f. 16th April'25. As per Regulation 24(2) of the CERC (Indian Electricity Grid Code) Regulations, 2023, before the declaration of COD, the generating station is required to confirm the enablement of Automatic Generation Control (AGC) to the appropriate Load Dispatch Centre.
- A.15.2 However, due to non-availability of OPGW connectivity for Parbati-Banala-Koldam Corridor and uncertainty in the schedule of OPGW connectivity, NHPC approached CERC for seeking relief, mainly on account of the difficulty faced by it in the implementation of Regulation 24 (2) of the IEGC Regulations, 2023, i.e., for the declaration of 'COD' of Parbati-II HEP 800 MW without the enablement /implementation of the AGC and to allow time extension for the same.
- A.15.3 NHPC has informed that as per communication from M/s IndiGrid, OPGW connectivity for the Parbati-II Project transmission line was expected to be functional by January 2026. Based on the same, the Hon'ble CERC, vide Order dated 20.03.2025 in Petition No. 277/MP/2025, relaxed the requirement of Regulation 24(2) of the IEGC Regulations, 2023, up to January 2026.
- A.15.4 Parbati-II power station has placed the order for installation and commissioning of AGC on M/s ABB India Limited, and AGC-related materials/panels have already been received at Parbati-II HEP.
- A.15.5 However, non-availability of the requisite communication infrastructure continues to be a critical bottleneck, preventing AGC enablement at Parbati-II and Parbati-III power stations.
- A.15.6 In the absence of a confirmed timeline for completion of the communication works, the power stations have been unable to proceed with further actions required for regulatory compliance.
- A.15.7 Powergrid representative informed that the total line length requiring OPGW installation is around 7 km, of which 800 m is Powergrid's portion and the remaining is Indigrid's portion.
- A.15.8 Powergrid informed that it has completed OPGW installation for its portion, while the Indigrid portion is yet to be completed. Additionally, the terminal equipment at the Parbati end has been supplied and is expected to be commissioned shortly.
- A.15.9 Representative from Indigrid was not present in the meeting.
- A.15.10 CGM(SO), NRLDC informed NHPC that if the OPGW connectivity for the Parbati-II Project transmission line is not functional by January 2026, NHPC would again need to seek exemption from the Commission citing the delay/ non-availability of OPGW connectivity for Parbati-Banala-Koldam Corridor.

A.15.11 MS, NRPC suggested that NHPC obtain a timeline from Indigrd, through an official letter, for the completion of OPGW related communication work for their line portion.

**Decision of OCC Forum:**

*NHPC was informed that if the OPGW connectivity for the Parbati-II Project transmission line is not functional by January 2026, NHPC would again need to seek exemption from the Commission, citing the delay/ non-availability of OPGW connectivity for the Parbati-Banala-Koldam Corridor.*

**A.16. Shutdown of 220 kV Tanakpur–Sitarganj and 220 kV Tanakpur–CB Ganj transmission lines (Agenda by Powergrid NR-III)**

- A.16.1 EE(O), NRPC apprised forum that NHAJ has requested for the shutdown of 220 kV Tanakpur–Sitarganj and 220 kV Tanakpur–CB Ganj transmission lines for dismantling and erection activities of the existing tower at Location No. 15–16 of the said transmission lines, necessitated due to construction of the 4-lane connectivity project of Banbasa ICP at the India–Nepal border under the Bharatmala Pariyojana.
- A.16.2 In this regard, NHPC submitted that Tanakpur Power Station (94.2 MW) is a Run-of-River (RoR) scheme with no upstream storage, wherein the entire inflow received is utilized for power generation. Power from Tanakpur Power Station is evacuated to the Northern Grid at Bareilly through two 220 kV transmission lines, namely 220 kV Tanakpur–Sitarganj and 220 kV Tanakpur–CB Ganj. In addition, power is also supplied to Nepal through the 132 kV Tanakpur–Mahendranagar line in radial mode in compliance with the Mahakali Treaty. Accordingly, consent of the Nepal side would also be required, as power from Tanakpur Power Station shall not be available during the proposed shutdown period.
- A.16.3 As per the shutdown request, a continuous shutdown of seven (07) days has been proposed, during which both transmission lines would remain unavailable for the evacuation of power from Tanakpur Power Station.
- A.16.4 NHPC representative informed that in 238<sup>th</sup> OCC outage meeting, they had requested for shutdown of 132 kV Tanakpur–Mahendranagar line from 21<sup>st</sup> January 2026 (08:00 hrs.) to 24<sup>th</sup> January 2026 (19:00 hrs.) for retrofitting and testing of new Numerical protection relay for 132KV Tanakpur-Mahendra Nagar (Nepal) Line and for carrying out Annual Maintenance of 220/132 KV, 100MVA ICT, which now NHPC plans to schedule with the shutdown of 220 kV Tanakpur–Sitarganj and 220 kV Tanakpur–CB Ganj transmission lines.
- A.16.5 NHPC also informed that Tanakpur HEP has achieved its design energy for this FY as of today.

- A.16.6 CGM(SO), NRLDC stated that Tanakpur HEP is presently supplying RTC power to Nepal in range of 15-20 MW whereas its net generation during morning and evening hours remains in range of 60-70 MW depending on water availability. Consent of the Nepal side would also be required, as power via Tanakpur Power Station will not be available during the proposed shutdown period.
- A.16.7 CGM(SO), NRLDC mentioned that black start facility at Tanakpur HEP is yet to be tested.
- A.16.8 CE(PSPA-II), CEA mentioned that information to Nepal for the said shutdown needs to be communicated through NLDC well in advance for seeking its consent.
- A.16.9 CE(PSPA-II), CEA suggested that JOC (Joint operation Committee) meeting may be convened by NLDC on urgent basis with Nepal with participation from Powergrid, NHPC, CEA, NRPC and GRID-INDIA for deliberation with Nepal on this shutdown matter.
- A.16.10 PTCUL gave consent for the simultaneous shutdown of 220 kV Tanakpur–Sitarganj and 220 kV Tanakpur–CB Ganj subject to the availability of 220kV Sitarganj-CB Ganj during the said shutdown period.

**Decision of OCC Forum:**

*NLDC to convene a JOC (Joint Operation Committee) meeting on an urgent basis with Nepal, Powergrid, NHPC, CEA, NRPC and GRID-INDIA for deliberation with Nepal on the shutdown matter.*

**A.17. Review the technical requirement of the non-switchable reactor installed at 400kV Kota-Merta line after implementation of Rajasthan Phase III, Part F scheme (Agenda by CTUIL)**

- A.17.1 CTUIL informed that a proposal has been received from Powergrid on 11.11.25 regarding reviewing the technical requirement of the non-switchable reactor installed at 400kV Kota-Merta line after implementation of Rajasthan Phase III, Part F scheme.
- A.17.2 As per the proposal, LILO of 400kV Merta-Kota line at Beawar S/s is under implementation as part of Rajasthan Phase III, Part F scheme. The line length detail after the proposed LILO are as under:
- Line length of 400kV Kota-Merta line: 255.39km (in original line, 50MVAR non-switchable line reactor installed at both ends)
  - 400kV Kota-Bewar section: 241.845 (after LILO)
  - 400kV Merta-Beawar section: 79.715 km (after LILO)
- A.17.3 CTU informed that the Merta substation belongs to RVPNL, the associated bays and reactor are owned by POWERGRID.

- A.17.4 In this regard, POWERGRID has requested to review of the reactor's utilization at Merta, considering the reduced line length of the Merta-Beawar section (approximately 79 km) with 50 MVAR non-switchable line reactor already installed at the Merta end, which would result in overcompensation in the Merta-Beawar section.
- A.17.5 To mitigate the above issue, CTU has proposed an NGR bypass arrangement at Mera S/s so that a 50MVAR line reactor may be utilized as a bus reactor, considering high voltage issues in the Northern region. In this regard, CTU has sought comments of Grid-India, CEA and RVPN on the above proposal.
- A.17.6 CTU informed that CEA and Grid-India have provided their consent on the proposal to utilize the line reactor of the 400 kV Merta–Kota line as a bus reactor at Merta substation through a suitable NGR bypass scheme. Further, RVPN vide letter 31.12.25 intimated that space for 01 no. 400 kV Bay for conversion of existing 400KV, 50MVAR line Reactor (installed on 400KV Merta-Kota line at Merta End) by NGR bypass arrangement to Bus Reactor is feasible with the construction of Tie Bay at 400 kV GSS Merta (RVPN).
- A.17.7 NRLDC was of view that controlling of this NGR bypassed LR as bus reactor should be through a separate bay. There should not be any limitation due to switchyard configuration arrangement on Bus reactor operation.
- A.17.8 Powergrid representative mentioned that before the next OCC meeting, they would confirm via SLD the network arrangement for the controlling of proposed NGR bypassed LR as bus reactor.

**Decision of OCC Forum:**

*POWERGRID/RRVNL to check the availability of space for a separate bay and to confirm, before the next OCC meeting, to GRID-INDIA and CTUIL the network arrangement for controlling the proposed NGR-bypassed LR as a bus reactor.*

**A.18. SPS for ICTs at 400kV Lucknow PG (Agenda by UP SLDC)**

- A.18.1 UPSLDC informed that the estimated demand of UP Control Area for the coming summer season is 34000 MW. Considering the past trend, the peak load observed at 400 kV S/S Lucknow (PG) is 740 MW. However, the N-1 limit of 2X500MW ICTs at 400 kV S/S Lucknow (PG) is 700 MW and therefore, ICTs are N-1 non-compliant.
- A.18.2 It has been informed vide letter no. C/CTU/AI/00/23rd CCTP dated 08 May, 2025, that the third 500MVA ICT has been approved by CTU and it is very unlikely to be commissioned in the upcoming summer season.
- A.18.3 Therefore, UPSLDC highlighted the need for a System Protection Scheme (SPS) at Lucknow (PG) to take care of N-1 contingency in the upcoming summer season.
- A.18.4 UPSLDC informed that the tentative logics for SPS for ICTs at 400kV Lucknow (PG), has been submitted to NRLDC for its observation.

- A.18.5 NRLDC representative mentioned that the proposed logics for SPS at 400kV Lucknow(PG) seems to be in order.
- A.18.6 Further, NRLDC stated that time delay of 1500ms for 105% loading may be checked by PGCIL. Of the proposed feeders, only Kundini D/C, Kursiroad D/C, and BKT may be wired initially, as the Chinhat feeder is not expected to carry 500 MW.
- A.18.7 UPSLDC agreed to the above suggestion of NRLDC.
- A.18.8 POWERGRID expressed some concern on implementation of priority wise feeders.
- A.18.9 CGM(SO), NRLDC asked POWERGRID to confirm in the upcoming PSC meeting whether any revision is required in the protection settings of the ICTs.

**Decision of OCC Forum:**

- a) *OCC Forum in principle approved SPS scheme with comments from NRLDC.*
- b) *UPSLDC to share methodology of implementation of such SPS schemes in UPPTCL substations with POWERGRID.*
- c) *Powergrid to confirm in the upcoming PSC meeting whether any revision is required in the protection settings of the ICTs.*

**A.19. Revised SPS logics for safe power evacuation at Rosa TPS (Agenda by UP SLDC)**

- A.19.1 UPSLDC informed that the SPS at Rosa TPS is required to be revised in view of the revised connectivity of Rosa TPS.
- A.19.2 UPSLDC mentioned that when earlier SPS designed for Rosa TPS, there was no connectivity of 400 kV lines at Rosa TPS.
- A.19.3 With the present scenario of 4 no. of 400kV lines at Rosa TPS, SPS needs to be revised according to the current contingency scenario.
- A.19.4 UPSLDC informed that the Revised SPS logics for safe power evacuation of Rosa TPS, has been submitted to NRLDC for its observation.
- A.19.5 NRLDC representative stated the following:
- Proposed revised SPS logics for safe power evacuation at Rosa TPS seems to be in order.
  - 220kV Shahjahanpur Ckt 1 & 2 frequently reach their thermal limits during the summer season, leading to significant N-1 non-compliance. Additionally, the 220kV Dohna line experiences high loading (~180–190 MW) during the winter season.
  - In light of these constraints, both the Shahjahanpur and Dohna lines may be integrated into the revised SPS logic submitted by UP as shown below to ensure system stability:

- Further, no evacuation constraints have been observed on the 400kV lines (Shahjahanpur and Badaun circuits).
- 220kV Rosa-Dohna ckt may also be included in OR logic for lines, however, not required immediately.

**Decision of OCC Forum:**

*OCC Forum approved the revised SPS logics for safe power evacuation at Rosa TPS with the comments from NRLDC.*

**A.20. Approval for Test Charging of 220kV Mobile GIS Bay at Bikaner-II Substation (Agenda by POWERGRID)**

- A.20.1 POWERGRID informed that it has procured one no. 220kV Mobile GIS (MGIS) Bay system (Trailer-mounted type) for emergency restoration of EHV systems, primarily for the Northeastern Region (NER). This is India's 1st Indigenous 220kV Mobile GIS (MGIS) system, manufactured by M/s Toshiba, Telangana factory & new Mobile GIS system will help in enhancing grid flexibility, resilience, and disaster readiness & it also enables fast grid restoration, temporary power evacuation, and substation augmentation with minimal infrastructure.
- A.20.2 In the absence of suitable ongoing projects in NER, and as discussed in the 232nd OCC meeting of NERPC, POWERGRID has proposed to temporarily deploy this 220kV MGIS unit at 400/220kV Bikaner-2 Substation, Rajasthan for purpose of testing of operational readiness, performance validation, and hands-on training of NER utility personnel and POWERGRID staff.
- A.20.3 POWERGRID has proposed that this 220kV MGIS will be commissioned on "No-Load condition" using 220kV Transfer Bus Bay at 400/220kV Bikaner-2 Substation. The proposed connection arrangement is enclosed as Annexure-A.XI of agenda.
- A.20.4 In this regard, POWERGRID requested approval from the OCC forum for test charging at the "No-Load condition" of 01, 220kV Mobile GIS system at 400/220kV Bikaner-2 Substation as per the proposed arrangement.
- A.20.5 CGM(SO), NRLDC stated that a similar case for utilization of 400kV Mobile substation as interim arrangement was observed in the Western Region, wherein a meeting under the Chairperson, CEA was also held. Accordingly, CEA approval should be obtained before charging the 220 kV Mobile GIS Bay at Bikaner-II Substation.
- A.20.6 Powergrid was also asked to confirm which element telemetry can be provided to NRLDC. Powergrid was also requested to record any relaxation required for test charging of the 220 kV Mobile GIS Bay at Bikaner-II Substation with respect to any condition or format of the GRID-INDIA First-Time Charging Procedure, in the meeting to be convened with CEA.

A.20.7 MS, NRPC suggested that Powergrid to approach CEA for obtaining approval to test the bay in NR before charging the 220 kV Mobile GIS Bay at Bikaner-II Substation.

**Decision of OCC Forum:**

*Powergrid to approach CEA for obtaining approval to test the bay in NR before charging the 220 kV Mobile GIS Bay at Bikaner-II Substation.*

**A.21. Table Agenda:1 Installation of 3x41.67 MVAR, 420 KV Reactor at Parbati-II HEP (Agenda by NHPC)**

A.21.1 NHPC representative apprised the forum that provision of 400 kV, 125 MVAR Bus Reactor at Parbati-II HEP was approved in the 15th NRPC Meeting held on 24.12.2009 and was further agreed in the 32nd Standing Committee Meeting of Power System Planning of Northern Region held on 31.08.2013.

A.21.2 Accordingly, NHPC placed the Letter of Award (LOA) on M/s GE T&D India Limited vide LOA No. GEMC-511687793739675 dated 23.05.2022 for supply, installation, and commissioning of 3 × 41.67 MVAR reactors, aligned with the commissioning schedule of Parbati-II HEP. The project commenced commercial operation from April 2025.

A.21.3 However, the installation and commissioning of the bus reactors were delayed due to extensive damage to approach roads caused by flash floods in July 2023, in addition to issues related to land clearances and associated civil works. Subsequently, a severe flash flood occurred in the upper reaches of Jiwa Nallah on 25.06.2025, which severely affected hydro projects in the Sainj Valley, including Parbati-II HEP.

A.21.4 NHPC mentioned that the originally proposed location for installation of the bus reactors and the associated overhead line tower was entirely submerged and filled with a large quantity of silt, boulders, and rocks. Further, the riverbed level has risen significantly, resulting in a complete alteration of the site topography and surrounding area.

A.21.5 In view of the above constraints, NHPC has submitted that the proposed location is now highly vulnerable. There is no suitable location is presently available in the vicinity of the originally approved site and project.

A.21.6 NHPC enquired POWERGRID whether space is available at Banala ISTS Pooling Station for installation the 3 × 41.67 MVAR, 420 kV Bus Reactor.

A.21.7 In view of the above and in consideration of maintaining system voltage, MS, NRPC asked CTU to access the feasibility of installing the 3 × 41.67 MVAR, 420 kV Bus Reactor at an alternative suitable location in the region.

**Decision of OCC Forum:**

- a) CTU to assess the feasibility of installing the  $3 \times 41.67$  MVAR, 420 kV bus reactor at an alternative suitable location in the region based on the present system conditions.
- b) Powergrid to confirm the availability of space for installing the  $3 \times 41.67$  MVAR, 420 kV bus reactor at the Banala ISTS Pooling Station.

## **A.22. Table Agenda:2 exemption from the requirement of 220 kV Double busbar arrangement at 220kV Substation Derabassi (Agenda by PSTCL)**

- A.22.1 PSTCL representative intimated that a 220kV Double Circuit line from 400kV PGCIL Panchkula (PGCIL) to 220 kV Derabassi (PSTCL) has been planned in the 3rd Multi-Year Tariff Plan (2023-26) of PSTCL, with the same work carried forward in the 4th MYT (2026-29). Additionally, two 220 kV bays at the 400 kV Panchkula (PGCIL) substation for the 220 kV line to Derabassi (PSTCL) were also agreed upon in the 11th CMETS meeting held on 30.09.2022.
- A.22.2 PSTCL informed that it will soon be initiating the NSWS application process for this work. It is noteworthy that, at present, the 220kV substation Derabassi (PSTCL) has a single 220kV busbar arrangement, and due to space constraints, the construction of a conventional (AIS) 220kV second busbar at Derabassi is not feasible.
- A.22.3 PSTCL indicated that a similar issue concerning the availability of only a single 220 kV busbar and the non-feasibility of the 2nd 220 kV busbar at 220kV substation Patti was also discussed during the approval process for the NSWS connectivity agreement for the shifting of 220kV Patti-Verpal S/C line from the Verpal end to the 400kV Amritsar (PGCIL). After several preliminary discussions, the matter was formally deliberated among PSTCL, CTU, NRPC and CEA during the meeting held on 15.01.2025. The meeting was concluded with the following decision:
- At present CTUIL may grant the connectivity considering that Patti Substation was commissioned in 1989 much before notification of above-mentioned Regulations and space constraint at the substation.
  - A team comprising of CEA, CTUIL, Grid-India, Powergrid and NRPC may visit the site to study the matter in details and to recommend the measures to be taken by PSTCL for ensuring the reliability of power supply and upgradation of the substation. CTUIL may coordinate the team visit.
- A.22.4 On a similar note, PSTCL informed that the 220kV substation Derabassi (PSTCL) was commissioned in 1996, prior to the notification of the relevant regulations. Due to space constraints, the construction of a second 220kV busbar is not feasible. Efforts are currently being made by PSTCL to explore all possibilities for the construction of the second 220kV busbar at 220 kV Derabassi substation, including the consideration of GIS/Hybrid technologies.

- A.22.5 In the event that the 2nd busbar cannot be constructed at Derabassi station despite these efforts, PSTCL requests exemption from the requirement to have a 220kV double busbar at Derabassi substation for the upcoming NSWS application for the 220kV double circuit line from 400kV Panchkula (PGCIL) to 220kV Derabassi (PSTCL). This exemption is sought to prevent any issues regarding the absence of a 220kV double busbar at Derabassi substation from being raised by CTUIL during the approval process for the NSWS application.
- A.22.6 MS, NRPC proposed that a joint team comprising CEA, CTUIL, GRID-INDIA, Powergrid, and NRPC visit the 220 kV Derabassi substation to assess space availability for a second 220 kV busbar and submit its recommendations. CTUIL may coordinate the team visit.
- A.22.7 SE(O), NRPC stated that if, after the site visit it is established that there is a space constraint for construction of a second 220kV busbar at Derabassi, then PSTCL should approach CEA for an exemption from the double bus scheme, as outlined in the CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulation, 2022.

**Decision of OCC Forum:**

*CTUIL to coordinate a joint team visit comprising CEA, CTUIL, GRID-INDIA, Powergrid, and NRPC to 220 kV Derabassi substation to assess space availability for a second 220 kV busbar and team to submit its recommendation on space availability for construction of a second 220 kV busbar.*

**खण्ड-ख: उ.क्षे.भा.प्रे.के.**

**Part-B: NRLDC**

**B.1 NR Grid Highlights for December 2025 and demand forecasting related**

NRLDC representative presented grid highlights for the month of December 2025:

**Demand met details of NR**

S.No	Constituents	Max Demand met (in MW)	Date & Time of Max Demand met	All time Max. Demand	Date & Time of All time Max Demand met
1	Chandigarh	287	31-12-2025 09:15	482	18.06.24 at 15:28
2	Delhi	5465	31-12-2025 11:00	8656	19.06.24 at 15:06
4	Haryana	9512	17-12-2025 09:45	14662	31.07.24 at 14:30
3	H.P.	2234	05-12-2025 07:45	2273	17.01.25 at 09:00
5	J&K	3301	31-12-2025 12:00	3200	07.01.25 at 10:00
6	Punjab	10172	06-12-2025 10:15	16754	28.06.25 at 15:00
7	Rajasthan	19100	29-12-2025 09:45	19165	12.02.25 at 11:00
9	U.P.	23070	31-12-2025	31486	11.06.25 at 00:45

			19:18		
8	Uttarakhand	2631	31-12-2025 09:00	2910	11.06.25 at 22:00
10	<b>Northern Region</b>	71633	26-12-2025 10:00	91234	19.06.24 at 14:37

S.No	Constituents	Max Consumption (in MUs)	Date of Max Consumption	Average Demand met (in MUs)	All time Max consumption	Date of All time Max Consumption
1	Chandigarh	4.84	31-12-2025	4.08	9.3	12.06.2025
2	Delhi	91.76	31-12-2025	80.82	177.7	18.06.2024
4	Haryana	172.89	17-12-2025	166.51	293.4	30.07.2024
3	H.P.	40.43	26-12-2025	38.15	42.6	11.06.2025
5	J&K	66.74	19-12-2025	65.27	70.3	04.02.2025
6	Punjab	176.84	05-12-2025	162.61	366.8	21.07.2024
7	Rajasthan	344.86	27-12-2025	335.16	388.0	11.06.2025
9	U.P.	402.24	31-12-2025	372.75	658.7	17.06.2024
8	Uttarakhand	48.61	31-12-2025	44.62	62.1	14.06.2024
10	<b>Northern Region</b>	1326.19	26-12-2025	1269.98	2022.9	12.06.2025

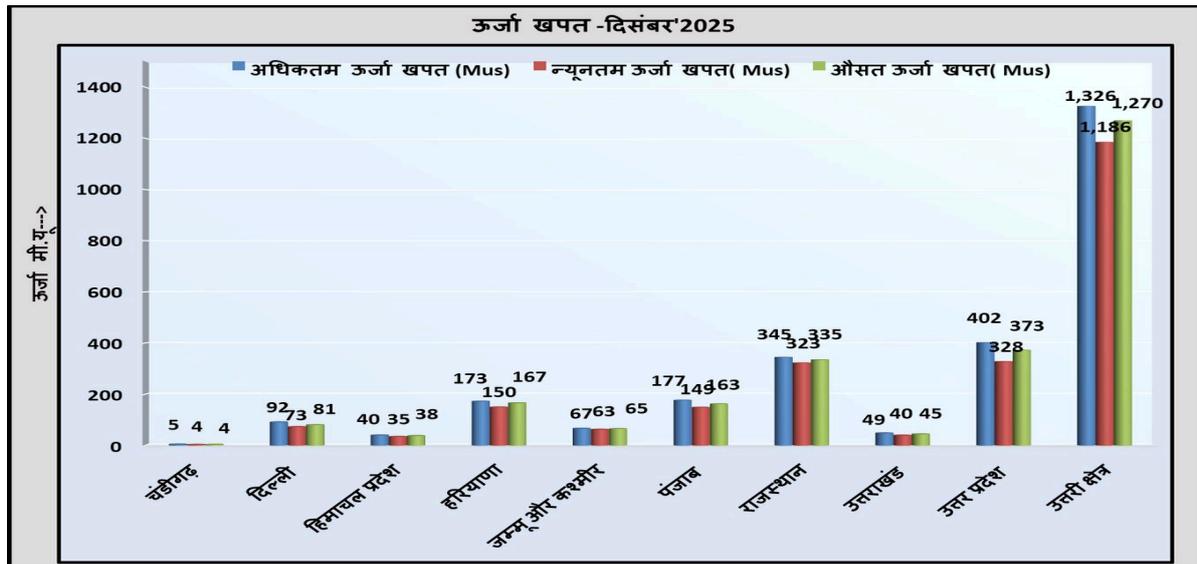
In December'25,

- Maximum energy consumption of Northern Region was 1326.19 MUs on 26th December'25 and it was 4.2% higher than December'24 (1272.95 MUs on 20th December'24).
- Average energy consumption per day of Northern Region was 1269.98 MUs and it was 6.9% higher than December'24 (1188 MUs/day)
- Maximum Demand met of Northern Region was 71633 MW on 26th December'25 @10:00 Hrs as compared to 68769 MW 20th December'24 @10:21 Hrs.
- 

#### Comparison of Average Energy Consumption (MUs/Day) – Dec '24 vs Dec'25

क्षेत्र/राज्य	दिसंबर - 2024	दिसंबर - 2025	% अंतर
चंडीगढ़	4.1	4.1	-1.52%
दिल्ली	76.0	80.8	6.29%
हरियाणा	38.3	38.2	-0.30%
हिमाचल प्रदेश	152.1	166.5	9.44%
जम्मू और कश्मीर	63.1	65.3	3.44%
पंजाब	155.2	162.6	4.78%
राजस्थान	321.8	335.2	4.15%
उत्तराखंड	43.7	44.6	2.20%
उत्तर प्रदेश	333.9	372.8	11.63%
<b>उत्तरी क्षेत्र</b>	<b>1188.3</b>	<b>1269.98</b>	<b>6.87%</b>

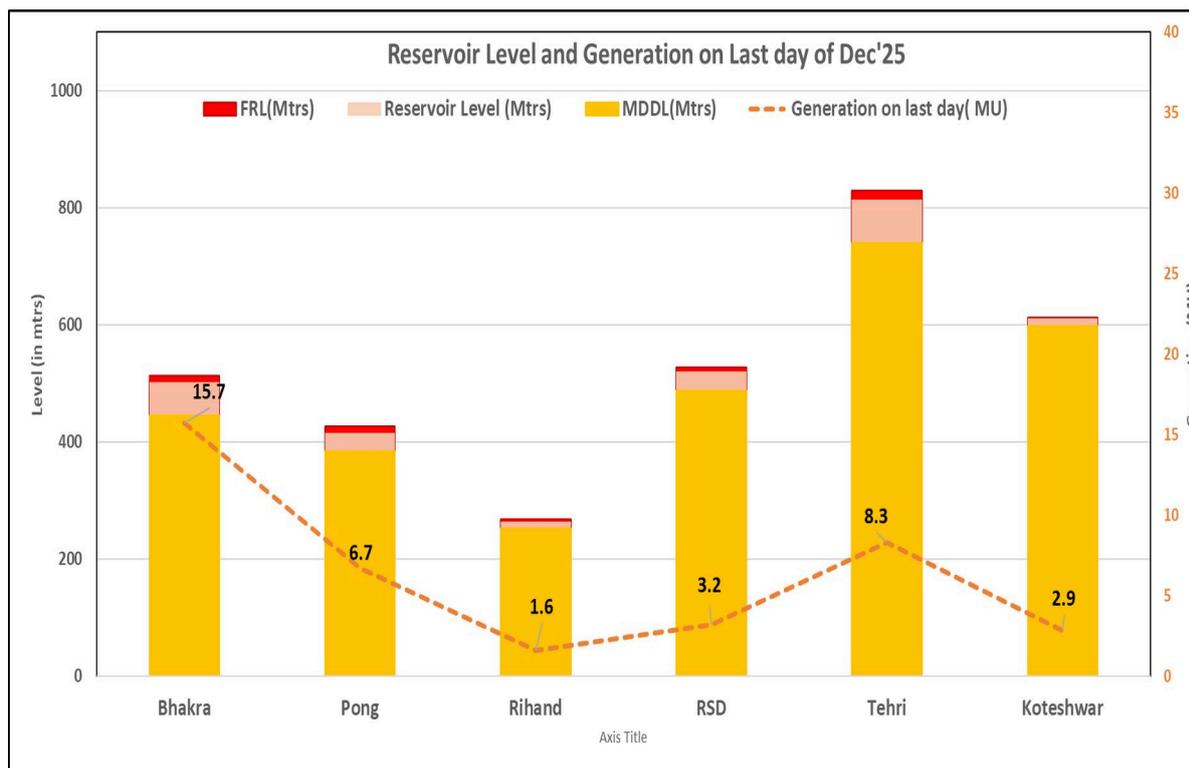
## Energy Consumption



## Frequency profile

Month	Avg. Freq. (Hz)	Max. Freq. (Hz)	Min. Freq. (Hz)	<49.90 (% time)	49.90 – 50.05 (% time)	>50.05 (% time)
Dec'25	49.995	50.421 (13.12.25 at 06:03:00 hrs)	49.472 (06.12.25 at 17:45:00 hrs)	6	77.5	16.5
Dec'24	49.998	50.416 (15.12.24 at 06:03:20 hrs)	49.493 (22.12.24 at 09:07:00 hrs)	5.58	76.45	17.97

## Reservoir Level and Generation on Last Day of Month



Reservoir Level on last day of December month				(Low: -ve)	(High: +ve)	
Year	Bhakra	Pong	Rihand HPS	RSD	Tehri	Koteshwar
2025	503	415.16	264.20	519.84	813.64	611.45
2024	491	404	263	497	813	611
Diff (in m)	12	11.16	1.2	22.84	0.64	0.45

**Detailed presentation on grid highlights of Dec'2025 as shared by NRLDC in OCC meeting is attached as Annexure-B.I.**

## **B.2 Demand forecasting and resource adequacy related: CERC order dated 05.10.2025**

For conducting studies for assessment of inter-control-area transfer capability or any other related simulation studies, thermal ratings of lines as specified in CEA's Manual on Transmission Planning Criteria 2023 are being considered as safe capacity limit of lines based on anticipated ambient temperature.

However, it is being observed in number of cases, that the rating of the terminal equipment is lower than thermal capacity of transmission line. This is leading to under-utilisation of line capacity due to limited switchgear rating and even leading to constraints in RE evacuation from Western Rajasthan RE complex.

As per the data available at NRLDC, following are few transmission lines in Northern region having terminal equipments of lower capacity than conductor capacity:

Name of Transmission line	Line length (km)	Owner	Conductor Type	Conductor Rating @45deg for 75deg design	Switchgear rating End-1 (MVA)	Switchgear rating End-2 (MVA)
400kV Bhadla-Bikaner D/C	189	RRVNL	Quad Moose	1701	1386	1386
400kV Jaisalmer-Kankani S/C	177	RRVNL	Quad Moose	1701	1386	1386
400kV Akal-Kankani S/C	223	RRVNL	Quad Moose	1701	1386	1386
400kV Akal-Jaisalmer S/C	61	RRVNL	Quad Moose	1701	1386	1386
400kV Suratgarh SCTPS-Babai D/C	245	RRVNL	Quad Moose	1701	1386	1386
400kV Mahendragarh-Dhanonda D/C	5	ATIL	Quad Moose	1701	1386	1386
400kV Gr. Noida-Nawada D/C	30	POWERGRID	Quad Bersimis	1978	1386	1386
400kV Vishnuprayag-Muzaffarnagar S/C	280	UPPTCL	Twin Moose	850	693	NA
400kV Vishnuprayag-Alakhnanda D/C	109	UPPTCL	Twin Moose	850	693	NA
400kV Rampur-Nallagarh D/C	128	POWERGRID	Triple Snowbird	1275/1625*	1386	1386
400kV Jhakri-Gumma D/C	55	POWERGRID	Triple Snowbird	1275/1625*	1386	NA
400kV Gumma-Panchkula D/C	112	POWERGRID	Triple Snowbird	1275/1625*	NA	1386
400kV Jhakri-Rampur D/C	21	POWERGRID	Triple Snowbird	1275/1625*	1386	1386

\*Considering ambient temp of 40deg (lower in Hilly areas)

- SJVNL representative stated that matter was internally discussed. There are technical as well as financial constraints in uprating the terminal equipment. Even after uprating the terminal equipments, bus bar capacity will not be sufficient to carry this power. All upgradation works would require shutdown of approx. 1 year to complete all works. During the shutdown period, NJPC and Rampur will not be generating and power of Karcham HEP may also get stranded. Ambient temperature may also exceed 40 degrees, therefore the line rating may not increase especially during summer months.
- OCC forum asked SJVNL to submit the above through letter to NRPC with copy to CEA and CTUIL.

- UP SLDC representative informed that line capacity is upto 1200A but the switchgear capacity is only 1kA with setting at 10% extra margin.
- NRLDC representative asked UP SLDC to submit the line capacity along with terminal equipment rating at UPPTCL end through email to NRLDC/NRPC.
- Haryana SLDC representative informed that switchgear upgradation works are under progress at Nawada and expected to be completed by Jan 2026. Upgradation works at Dhanonda are under progress and will take some more time.
- RRVPNL representative informed that NIT has been issued for terminal equipments of all transmission lines.
- MS NRPC asked RRVPNL to submit line wise status in upcoming meeting scheduled on 19.01.2026 at NRPC.

***OCC forum asked all members to take necessary actions as discussed above.***

### **B.3 Critical operation of Rajasthan Grid during winter season:**

Issues related to grid operation in Rajasthan state control area have been highlighted from NRLDC side in last several OCC/TCC/NRPC meetings. It is to be noted that such issues get aggravated during winter months when agricultural demand in state is on the higher side.

Accordingly, a meeting was convened by GRID-INDIA with Rajasthan on 05.01.2026 to discuss portfolio management by Rajasthan state. During the meeting, following major issues being observed in portfolio management by Rajasthan state during this high demand season were discussed:

1. Huge variations in demand of Rajasthan state with day's peak demand increasing to more than double (around 19000MW) of the night demand at 0400hrs (9000MW). Due to the high increase in demand during morning hours there are issues in portfolio management by Rajasthan state till solar generation is fully available.
2. As Rajasthan state is relying heavily on market for power procurement, in case power is not available in market during morning hours, Rajasthan is overdrawing from the grid.
3. Due to the limited ramp rate support from thermal generators and inherent delays in availability of power in case of bilateral exchange of power with other state due to 15min scheduling, there are large instantaneous deviations by Rajasthan state from grid at time block boundaries.
4. In case of foggy weather or cloudy weather when intrastate solar generation does not pick up, Rajasthan will have to rely on market for procurement of power or overdraw from the grid.

5. Due to high drawl by Rajasthan state from ISTS network during the day-time there are transmission related issues which are already being discussed in TCC/NRPC and OCC level meetings.
6. Rajasthan state has already met demand in excess of 19,400MW in Dec 2025 and demand may cross 20,000MW in Jan and Feb 2026, so the above issues are likely to further aggravate.

Following measures were discussed and suggested in the meeting on 05.01.2026:

- Rajasthan SLDC and RUVITL to further discuss with DISCOMs and explore possibility of load shifting including any staggering within each DISCOM.
- Rajasthan to take appropriate measures, including load management, to maintain grid reliability and safety in case of over drawl during low frequency or any threat to system security due to potential overloading
- RUVITL to increase their power tie-up during morning hours and reduce dependency on market.
- Rajasthan SLDC to share short note/report on the pilot study done which would benefit in improving overall regulations and standards for DRE.
- Rajasthan SLDC to take up with RRVUNL for more ramp support from intrastate thermal generators reducing dependence on DAM/RTM
- Improving forecasting demand and intrastate solar generation by state thereby reducing dependency on DAM/RTM.
- SPS implementation which is under progress in POWERGRID substations to be expedited jointly by POWERGRID and RRVPNL.
- Expanding state portfolio based on Long Term Resource Adequacy Planning studies
- RRVPNL may ensure healthiness of available capacitor banks and expedite commissioning of new capacitors. DISCOMs also to prioritise installation of capacitor banks in areas where low voltages and low power factor are observed through their own fund as PSDF funding would not be provided for the same.
- RRVPNL to take corrective actions including load management in coordination with DISCOMs in real-time from load side if voltages are critically low for ensuring safe and reliable grid operation. Shifting some load to 11:00-14:00 hrs if margin available, else shifting to 21:00-04:00 hrs till transmission augmentation.
- Rajasthan SLDC to take up the matter for running Dholpur gas units which would help to manage drawl from ISTS and improve severely degraded voltage profile in Hindaun/Alwar area.

NRLDC representative stated that due to high drawl by Rajasthan state from ISTS, other issues are being observed which are described in detail:

- I. State is importing upto 8800-9000MW against ATC/TTC limits of 7000/7600MW and approved GNA quantum of 5755MW. Violation of transfer capability limits of

Rajasthan state control area during 06:00-18:00 hrs (higher violation from 06:00-11:00 hrs).

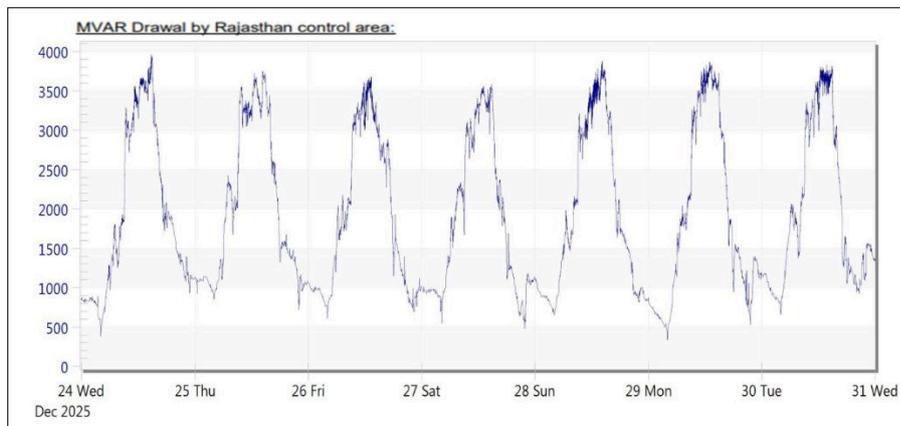
- II. Very high loading (N-1 non-compliance) at majority of 400/220kV substations (~07 ISTS and 07 intra-state stations)
  - ISTS Stations – Bhiwadi PG, Bassi PG, Neemrana PG, Jaipur south PG, Sikar PG, Kankroli PG, Kotputli PG. SPS schemes to prevent cascade tripping on overload for these ICTs approved from NR-OCC forum in Nov 2025 and under implementation by POWERGRID.
  - Intra-state Stations – Deedwana, Chittorgarh, Ajmer, Merta, Bikaner, Suratgarh and Ratangarh. As an interim measure, SPS has been installed at multiple locations of intrastate substations to prevent cascade tripping on overload.
- III. Heavy reactive power drawal (MVar drawal) / poor power factor (0.8-0.9 p.u.) leading to low voltages in intra-state system. Rajasthan state control area is drawing 3000-4000MVar from ISTS network during 1000-1500 hrs. As per latest discussions with Rajasthan team, state DISCOMs have been asked not to rely on PSDF funds for capacitor installation and take it up through their own funds. 400kV as well as 220 KV Bus voltages at Alwar, Hindaun and 220kV voltage at Dholpur are remaining critically low (on lower side of IEGC band). 400 kV buses at Alwar (~320 kV) and Hindaun (~330 kV), and 220 kV bus at Dholpur (~160 kV).
- IV. Highly loaded 220kV network including lines importing power from ISTS substations such as:
  - Bassi (PG)-Dausa(RRVPNL)
  - Sikar (PG)-Sikar (RRVPNL), Sikar (PG)-Dhod(RRVPNL)
  - Kankroli (PG)-Kankroli(RRVPNL), Kankroli (PG)-Amberi (RRVPNL)
  - Bhiwadi (PG)-Khuskhera (RRVPNL) etc.

Rajasthan SLDC provided following updates during 237 OCC meeting:

- New 400/220kV ICT at Merta is expected by end of Nov 2025
- New 400/220kV ICT at Bikaner is expected by end of Nov 2025
- New 400/220kV ICT at Heerapura is expected by end of Nov 2025
- New 400/220kV ICT at Jodhpur is expected by end of Dec 2025
- 151 Capacitor banks under installation and covered areas which have low power factor viz. Bikaner(Raj) would be commissioned by Dec 2025.
- RE generators are supporting grid and now injecting MVar during day time to support grid voltages.
- RREC is also taking up with intrastate RE generators to comply with existing CEA regulations and provide reactive power support.

However, with the increased loadings in the transmission system, the operational issues have once again aggravated with poor power factor across different substations and also severe N-1 non-compliance of number of 400/220kV ICTs in Rajasthan.

Further, huge MVAR drawl by Rajasthan control area from grid is observed with MVAR drawl reaching alarming levels of >3200 MVAR. It is also pertinent to mention here that excessive MVAR drawl from the Grid would also lead to payment of reactive charges into the pool by Rajasthan control area.



**MS NRPC enquired Rajasthan SLDC about the load that starts to ramp up during morning hours.**

**Rajasthan SLDC representative informed that the agricultural load has mainly been shifted to 0900 to 1800 hrs period. Rajasthan Urja Vikas and IT Services Ltd (RUVITL) has been asked to review agricultural load timings so that morning ramp in state demand is not very high and state is able to ramp drawl as well as internal generation matching with demand pattern.**

**NRLDC and NRPC representatives asked Rajasthan SLDC to recheck timings of agricultural feeders as there seems to be sharp increase in state demand, especially from 0600hrs**

**CGM(SO), NRLDC emphasized that currently Rajasthan is not a separate bid area in the power exchange. If a separate bid area is created for Rajasthan, the state will not be able to schedule power beyond its ATC limits, similar to the current situation with Punjab. Additionally, the commissioning of SPS at various POWERGRID substations is in progress and may be expedited, which would help prevent large load losses in the event of an N-1 contingency of 400/220 kV ICTs at these substations.**

**NRLDC representative stated that Rajasthan SLDC may share short note/report on the pilot study done which would benefit in improving overall regulations and standards for DRE.**

**OCC forum asked Rajasthan SLDC and RRVPNL to take necessary actions as discussed above.**

## B.4 SPS proposals in Rajasthan

NRLDC representative stated that majority of 400/220kV ICTs in Rajasthan state (both interstate as well as intrastate are N-1 non-compliant). List of N-1 non-compliant ISTS substations is shown below:

Constrained location	SPS Status as available with NRLDC
3*315=945 MVA ICT at Bhiwadi(PG)	Approved and to be implemented
2*315+500=1130 MVA ICT at Bassi(PG)	Approved and to be implemented
315+500=815 MVA ICT at Neemrana(PG)	Approved and to be implemented
2*500=1000 MVA ICT at Jaipur South(PG)	Approved and to be implemented
2*315+500=1130 MVA ICT at Sikar(PG)	Approved and to be implemented
3*315=945 MVA ICT at Kankroli(PG)	Approved and to be implemented
2*315=630 MVA ICT at Kotputli(PG)	Approved and to be implemented
2*315=630 MVA ICT at Deedwana(RVPN)	Not planned

NRLDC vide email dated 02.12.2025 had communicated that the stage wise logic for SPS of ICTs at POWERGRID stations in Rajasthan control area was discussed in 64th PSC meeting held on 21.11.2025. The time delay logic proposed by Rajasthan was agreed and POWERGRID was requested to start the implementation process of the SPS at designated stations.

Time delay for stage-1&2 of SPS was decided as:

1. Stage-1: 105% loading with 1 sec delay
2. Stage-2: 105% loading with 1.5 sec delay

POWERGRID has been asked to implement the SPS at designated stations i.e., 400/220kV Kankroli(PG), Bassi(PG), Neemrana(PG), Kotputli(PG), Bhiwadi(PG), Jaipur South(PG) and Sikar(PG) at the earliest possible.

***POWERGRID representative informed that separate meeting was convened on 12.01.2026 to discuss list of feeders which are being reviewed at SLDC end. Rajasthan SLDC representative stated that they are reviewing the list of feeders.***

***OCC forum asked POWERGRID and RRVPNL to quickly converge and expedite commissioning of SPS.***

## B.5 State-wise transmission constraints during high demand season of 2025-26 and SPS proposals

During the high demand season, the transmission system in Northern region remains heavily loaded. Transmission constraints observed in the grid during high demand period are regularly being highlighted in OCC meetings. Same is also being submitted to CTUIL and CEA through quarterly operational feedback.

Even after several follow-ups, it is observed that progress of several transmission elements are not upto the mark and expeditious actions from transmission utilities are required so that minimal issues are observed at transmission level during the high demand season.

State-wise issues and measures required thereof are listed below. Concerned transmission utilities were requested to provide update and ensure that these transmission elements are expeditiously commissioned.

### **Punjab:**

Punjab SLDC representative stated that they have reassessed the ATC/TTC limit for paddy 2026. State level ATC/TTC committee has submitted the report to increase ATC/TTC by 11600/12100MW before paddy 2026 with subject to the condition of commissioning of some elements.

***Punjab SLDC was asked to share basecase along with ATC/TTC limits for paddy 2026 with NRLDC at the earliest.***

### **Haryana:**

#### **SPS proposals in Haryana**

##### **For SPS at 400/220kV Hissar(PG) ICTs:**

NRLDC representative asked POWERGRID to plan & implement SPS in such a manner that SPS is surely implemented by Apr 2026.

POWERGRID representative stated that DTPC has been received at Hisar(PG) and the logic to be implemented may be shared by NRPC. The work is expected to be completed in next 2 months.

***OCC forum asked Haryana SLDC and NRLDC to prepare SPS logic for 400/220kV Hissar(PG) ICTs before next OCC meeting.***

##### **For SPS at 400/220kV Panipat ICTs:**

OCC forum discussed that a separate meeting was convened on 02.01.2026 under chairmanship of SE(O), NRPC to discuss the issue. The feeders and priority for wiring under SPS were approved.

Panipat SPS scheme operation at 105% loading:

- Within 3-4 seconds delay 220kV Chhajpur D/C lines will be opened
- Within 7-8 seconds delay 220/33 kV ICTs will be opened
- After 12 second delay 220kV Kurukshetra-Pipli line will be opened

For restoration of affected load of Haryana, DTL in coordination with NRLDC will shift the Narela load to Mandola subject to real time margin availability.

***The logic and related protection settings shall be discussed in upcoming protection subcommittee meeting of NRPC and accordingly SPS can be implemented by HVPNL before summer 2026.***

### **Uttar Pradesh:**

POWERGRID representative stated that 500MVA ICT-4 at Allahabad is expected to be commissioned by Jan 2026 and First Time Charging is under process.

It was also informed by UPPTCL representative that old 240MVA ICT at Obra is expected to be revived by Jan 2026 whereas 315MVA ICTs at Obra would be revived after some time due to requirement of procurement of ICTs.

CTUIL representative stated that ICT capacity augmentation at 400/220kV Sohawal(PG) shall be taken up in next CMETS meeting.

### **SPS proposals in Uttar Pradesh**

UP SLDC informed that work order for SPS logic of 400/220kV Bareilly S/s has been placed. SPS at both 400/220kV Panki and Bareilly substation are expected to be commissioned by Mar 2026.

OCC forum asked POWERGRID to implement SPS scheme at Agra(PG) at the earliest.

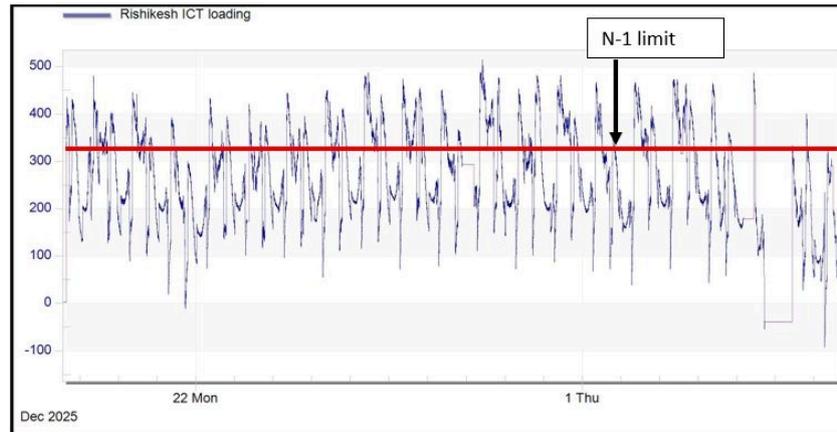
POWERGRID representative stated that SPS at Agra(PG) would be commissioned by Jan 2026 end.

### **Uttarakhand:**

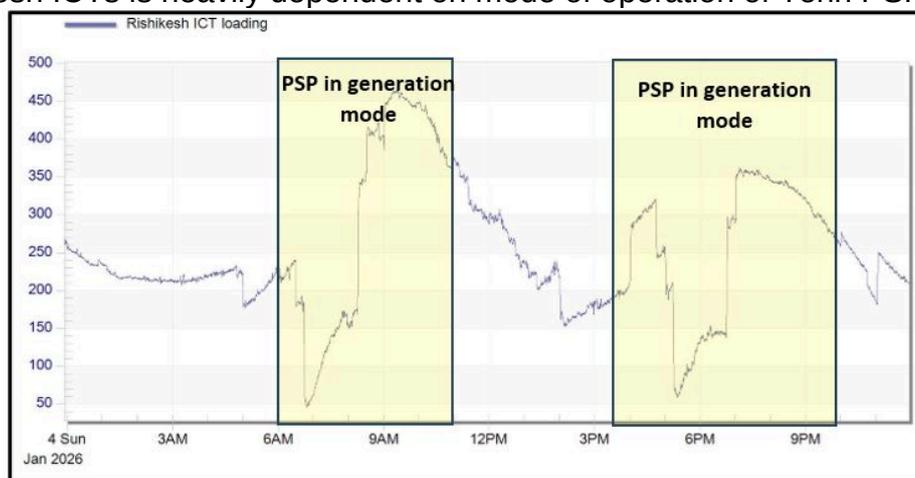
NRLDC representative stated that:

Continuous violation of ATC/TTC limits and loading of 400/220kV Rishikesh ICTs beyond their N-1 limit is being observed since the commissioning of 400kV Koteshwar-Rishikesh D/C line.

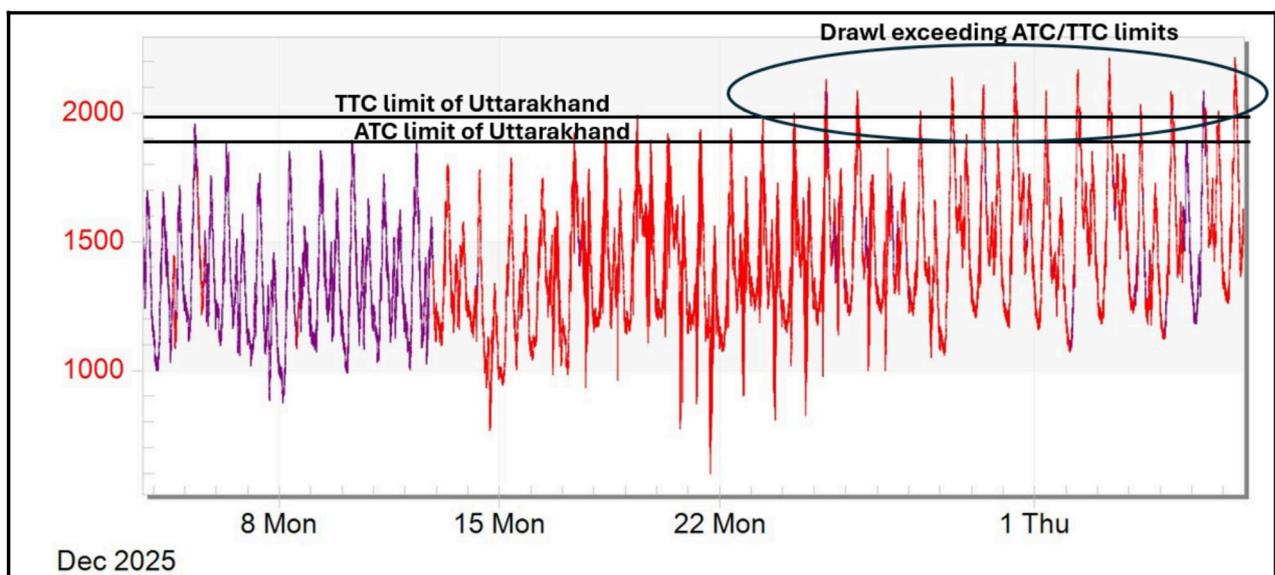
Loading pattern of 400/220kV Rishikesh ICTs for Dec 2025 is shown below:



Further, with the commissioning of 400kV Koteshwar-Rishikesh D/C line, the loading of Rishikesh ICTs is heavily dependent on mode of operation of Tehri PSP.



ATC/TTC limits and import by Uttarakhand state for the month of Dec 2025 is shown below wherein it can be clearly seen that there is ATC/TTC limits violation almost on daily basis especially during 0800-1200 hrs in morning and 19-22 hrs in evening.



**PTCUL representative stated that they shall plan for new 500MVA ICT at 400/220kV Rishikesh.**

**CTUIL representative stated that 400kV Koteshwar-Rishikesh D/C line was approved in 2015-16 and the demand of Uttarakhand was much lower during that period. When studies were done back then, no constraint at 400/220kV Rishikesh ICTs was envisaged.**

**OCC forum asked CTUIL and PTCUL planning team to study loadings of line and ICTs in Rishikesh area in 2028-29 time frame.**

**Uttarakhand SLDC representative stated that they have kept opened 220kV lines (220kV Rishikesh-SIDCUL and 220kV Rishikesh-IIP) to control loading of 400/220kV Rishikesh ICTs, but this has reduced reliability of power as some 220kV stations are being supplied from only single source.**

**Uttarakhand SLDC was asked to plan for SPS for 400/220kV Rishikesh ICTs.**

**ATC/TTC limits of states for the month of February 2026 are attached as Annexure-B.I of agenda. Utilities were requested to go through these limits and provide comments.**

**OCC forum asked all members to take necessary actions as discussed above.**

## **B.6 Bypass of 400kV Dadri-Maharanibagh and 400kV Maharanibagh-Ballabgarh at 400kV Maharanibagh**

765/400 kV Narela Substation was energized on 01.10.2025 through the LILO of the 765 kV Meerut–Bhiwani line. Subsequently, all 765/400 kV ICTs, bus reactors, and both the 765 kV and 400 kV buses at Narela have been brought into service.

Following interconnections were recently commissioned:

- 765 kV Khetri–Narela D/c line
- 400 kV Narela–Maharanibagh M/c line

Before the implementation of above arrangement, assessment of the requirement to bypass the 400 kV Ballabgarh–Dadri lines at Maharanibagh and maintain radial connectivity of Maharanibagh with Narela at 400 kV was studied at NRLDC end.

Observations from fault level assessment studies:

- a. In the Final arrangement with 400kV Dadri-Ballabgarh Not By-passed at 400kV Maharanibagh (i.e. connected), 3-Ph Fault current at 400kV Maharanibagh, 400kV Narela and 400kV Ballabgarh will increase by 10kA, 23kV and 4kA respectively, but still within 45kA, so no issue in these S/s. Further, it would also provide good fault level support at 765/400kV Narela S/s.

- b. However, 3-Ph Fault current at 400kV Dadri NCR and 400kV Dadri (PG) will increase by 5kA at each S/s and it would be ~51kA and 50kA respectively. Any issue in case of 50kA 3-Ph Fault current at 400kV Dadri S/s may be reviewed by PGCIL/NTPC.
- c. 3-Ph Fault current at 400kV Meerut S/s is 63kA in basecase itself, no major impact with By-passing 400kV Dadri-Ballabgarh at 400kV Maharaniabagh.
- d. Before the commissioning of the Narela system, following were the fault levels:

		With bypass	Without bypass	
Fault levels (MVA)				
124014	[BALLABHGR-PG400.00]	30725.77	31035.63	1%
124027	[BALLABH_2ND	26431.13	29380.82	11%
144002	[MAHARANI	24081.48	34628.12	44%
154061	[DADR-NCR	36093.54	38454.57	7%
154118	[DADRI_PG	35508.13	37790.86	6%
Fault levels (kA)				
124014	[BALLABHGR-PG400.00]	44.3488	44.7961	1%
124027	[BALLABH_2ND	38.15	42.4076	11%
144002	[MAHARANI	34.7586	49.9814	44%
154061	[DADR-NCR	52.0965	55.5044	7%
154118	[DADRI_PG	51.2516	54.5464	6%

- e. With connection of only 400kV Ballabgarh-Maharaniabagh line, following are fault levels:

		Fault levels (MVA)			% change (b-a)	% change (c-a)
		Earlier arrangement of bypass (a)	Present arrangement w/o bypass (b)	Connection of only 400kV Ballabgarh-Mbagh ©		
124014	[BALLABHGR-PG400.00]	30134	30475	30428	1.13%	0.98%
124027	[BALLABH_2ND	25799	28342	28126	9.86%	9.02%
144002	[MAHARANI	16104	28029	22346	74.05%	38.76%
144015	[NARELA_400	18222	27257	23311	49.58%	27.93%
154061	[DADR-NCR	32096	34503	30317	7.50%	-5.54%
154118	[DADRI_PG	31633	33968	29903	7.38%	-5.47%
Fault current (kA)						
124014	[BALLABHGR-PG400.00]	43.5	44.0	43.9	1.13%	0.98%
124027	[BALLABH_2ND	37.2	40.9	40.6	9.86%	9.02%
144002	[MAHARANI	23.2	40.5	32.3	74.05%	38.76%

144015	[NARELA_400	26.3	39.3	33.6	49.58 %	27.93%
154061	[DADR-NCR	46.3	49.8	43.8	7.50%	-5.54%
154118	[DADRI_PG	45.7	49.0	43.2	7.38%	-5.47%

Comments could not be received from NTPC and CTUIL during 238th OCC meeting.

MS NRPC suggested that since NTPC and CTUIL representatives have not provided any comments, proposal of keeping 400kV Dadri-Maharanibagh-Ballabgarh to remain connected at 400kV Maharanibagh may be deliberated in next OCC meeting.

Accordingly, proposal of keeping 400kV Dadri-Maharanibagh-Ballabgarh remain connected at 400kV Maharanibagh was deliberated in 239 OCC meeting. NTPC Dadri representative submitted that:

- a) 400kV Dadri-Ballabgarh Not By-passed at 400kV Maharanibagh – reported fault level of up to 55.5kA as per table in 239th OCC (Page 35). With actual fault level more than 50kA but equipment is rated for only 50 kA, ratings such as interrupting capacity, making capacity, and short-time withstand for 400kV Switchyard equipment are tested. These ratings are guaranteed only up to the rated value for their safe and reliable operation.
- b) With connection of only 400kV Ballabgarh - Maharanibagh line, fault levels are within limit (very close to rated short circuit level) and may be acceptable.

When a network is designed, every EHV electrical equipment—like circuit breakers, isolators, busbars, and CTs has a maximum fault current that it can safely handle. This limit is 50kA at NTPC 400kV Dadri Switchyard. The proposal of keeping 400kV Dadri-Maharanibagh-Ballabgarh to remain connected at 400kV Maharanibagh may be avoided. Option (b) above may be considered with a consideration that further modification/ increase in fault level may need modification such as inclusion of reactors/ current limiters or any other suitable measure. At NTPC Dadri, 400kV Bus splitting were done in line with grid recommendation in 2019 to reduce high fault level at 400kV Switchyard.

MS, NRPC suggested that as 63kA rated switchgear are also available, NTPC Dadri may also explore upgrading their terminal equipment's.

***OCC forum discussed that as 3-phase fault levels are within switchgear limits and to ensure reliability of supply to Delhi, 400kV Dadri-Maharanibagh-Ballabgarh must remain connected at 400kV Maharanibagh. Concerns expressed by NTPC were noted. CTUIL was asked to study and plan for measures to further reduce fault levels at Dadri NTPC in future. Moreover, NTPC may explore using 63kA rated switchgear.***

## B.7 Up-rating of Dadri Thermal Capacity

Dadri Stage-II Units equipment and auxiliaries were designed for 500 MW capacity, however same were restricted to 490 MW due to chimney height restriction by Directorate General of Civil Aviation (DGCA). However, the restriction on capacity due to Chimney height has been taken away after commissioning of Flue Gas Desulphurization (FGD) system at Dadri Stage-II. After Commissioning of FGDs, the Plant is operating with reduced Chimney height as per MOEF&CC guidelines. Also, CERC vide its order dated 02.12.2024 in Petition No- 348/GT/2022 has approved Tariff of Dadri FGD System.

Subsequently, after removal of restriction of Chimney height on Unit Capacity due to Commissioning of FGD, NTPC Board in its 545th Meeting dated 27.07.2024 has accorded approval for up-rating of capacity of exiting Dadri Stage-II Units from 490 MW to 500 MW

As per CEA 'Revised Guidelines for retirement & up-rating/ de-rating of Generating Unit(s) issued vide Office Memorandum, CEA-PL-14-38/1/2018-PDM&LF Division' April 2024, the provisions for up-rating of Unit Capacity are provided as under:

### Quote

*“(i) In case, the generating company / utility has decided to de-rate or up-rate the generating unit(s), as the case may be, shall request CEA to incorporate the same in the database of installed generating capacity of the country along with the following documents:*

*(a) A certified copy of the Resolution of Board of Directors in which the decision has been taken to de-rate / up-rate the generating unit(s),*

*(b) In case of up-rating of thermal generating unit(s), utility shall provide a Certificate from RLDC/SLDC to the effect that the generating unit(s) has been operated for the continuous trial run for a period of 24 hours at its up-rated capacity.”*

### Unquote

In this regard, NTPC has intimated the tentative schedule to commence the trial run of 24 hrs each for Unit-5 & Unit-6 of Dadri Stage-II at up-rated Capacity (500 MW) one by one from 13th to 15th January 2026.

After demonstration of trial run of 24 hrs as per CEA guidelines for up-rating capacity from 490MW to 500MW, NTPC shall submit the test data and trial run data to NRLDC and CEA. Few tests shall be carried out during the trial run testing period. After data verification, NRLDC shall issue a trial-run certificate after review of submitted data.

***NTPC representative stated that tests data shall be shared within next 3-4 days with NRLDC.***

***OCC forum noted the same.***

## **B.8 SPS for Champa-Kurukshetra HVDC**

As discussed in recent OCC meetings, there have been concerns regarding reliability of Champa-Kurukshetra HVDC. There have been unplanned load loss that has taken place in two events related to simultaneous all poles outage of HVDC Champa-Kurukshetra namely,

1. 16.5GW load loss event on 17.06.2024 due to tripping of Champa-Kurukshetra all poles carrying 4000MW with NR total load as 89.4GW
2. 0.9GW load loss event on 09.06.2025 due to tripping of Champa-Kurukshetra all poles carrying 4300MW with NR total load as 82.6GW

The recommendations of Committee formed under Member (GO&D), CEA] to analyse 17<sup>th</sup> June 2024 are attached as Annex-B.II of agenda. NRLDC has been continuously pursuing with NR states to take measures for reactive power support at local level so that reactive power exchange from ISTS is minimal. However, as per discussions held in OCC meetings, no progress is being reported. There is huge MVAR drawl by NR states during May-Sep months.

Accordingly, in 233 OCC meeting it was agreed to implement a SPS scheme which can shed loads in case of simultaneous outage of all poles of HVDC Champa-Kurukshetra. Since, identification and wiring of new load groups may be difficult for implementation in short time frame and further utilities have also expressed concerns in identifying further new feeders for UFR or other load shedding schemes, it was suggested to utilise the wired loads of existing Agra-Gwalior or Rihand-Dadri SPS scheme. Signal of multiple HVDC pole outage can be extended from Kurukshetra station to Dadri/Agra SPS scheme and some load relief can be obtained. The automatic disconnection of wired loads post outage of multiple HVDC Poles at Kurukshetra may provide some relief and may help in containing the voltages till suitable static and dynamic compensation devices are commissioned.

Accordingly a separate meeting was convened on 04.09.2025 by NRLDC with participation from SLDCs, POWERGRID and NRPC. Thereafter, NRLDC representative requested all states to submit the data for each feeders with following details:

- Loading each feeder wise for Jun-Jul months during 1200-1500 hrs period
- Whether feeders mentioned in list are operated radially during Jun-July months or not?

- SLDC/STU comments regarding usage of feeder in SPS logic i.e. if there are any preferences or they want to use other alternate feeders in SPS. In case no issues from their side, they may mention Consented.
- Medium of signal transfer to feeders (OPGW/PLCC).

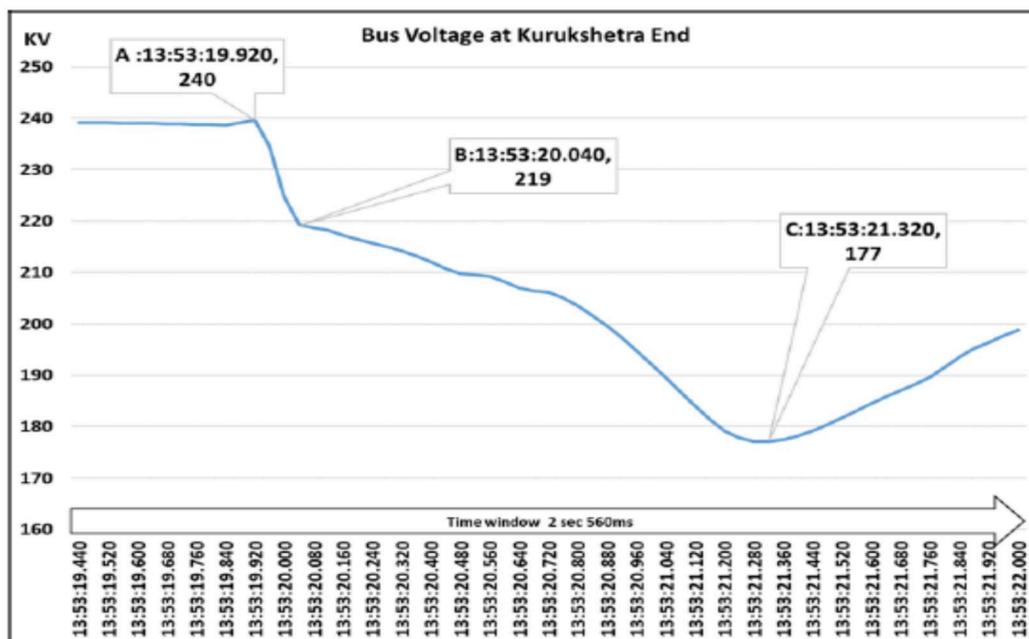
Inputs from all SLDCs have been received at NRLDC end.

CEA vide letter dated 22.09.2025 had communicated that a committee has been constituted to study the issue of frequent outages of HVDC Champa-Kurukshetra line and recommend mitigation measures. The committee conducted its first meeting on 12.12.2025 wherein it was discussed that:

- NRPC and Grid-India to furnish the Compliance/ Implementation Status of recommendations of MoP Committee [constituted under Member (GO&D), CEA] Report on HVDC Champa-Kurukshetra link trippings
- Grid India to carry out the proper Study regarding Voltage dip occurring at Kurukshetra Station end below 0.7 p.u. and suggest suitable remedial measures

***OCC forum asked POWERGRID to examine and confirm how SPS signal can be transmitted from Kurukshetra to Agra/Dadri and what impact it would have on the effectiveness of SPS.***

***NRLDC representative presented that in the tripping event of 17<sup>th</sup> June 2024 it was observed that when Poles 1 and 3 of the 800 kV Kurukshetra line were blocked, there was a sudden reduction in voltage across all three phases of the AC system at nearly all stations in the Northern Region. As per PMU data, the bus phase voltage at the 400 kV Kurukshetra dropped from 240 kV to 177 kV within 2 seconds. In first sharp reduction, voltage reached 219 kV from 240 kV in 120 ms due to tripping of filter banks at Kurukshetra, after which voltage continued to reduce from 219 kV and reached 177 kV due to change in load and stalling of motor loads. Similar voltage drops were recorded at various substations, significantly impacting the stability of the power grid.***



**POWERGRID representative stated that signal shall be transmitted immediately from Kurukshetra or Dadri to Agra.**

**OCC members were asked to provide actions taken at their end in compliance to recommendations of MoP Committee constituted under Member (GO&D), CEA to analyse 17th June 2024 to NRLDC/NRPC.**

## B.9 Delay in restoration of HVDC Champa-Kurukshetra Bipoles

Shutdown of HVDC Champa-Kurukshetra Bipole 1 was approved from 0600 hrs of 26.12.2025 to 0600 hrs of 27.12.2025. Bipole 2 shutdown was approved from 1400 hrs of 26.12.2025 to 1800 hrs of 27.12. 2025. There was reduction in Northern Region import capability-2900 MW during the shutdown of one-Bipole and 5800 MW during the shutdown of both Bipoles.

However, significant delay was observed in restoring the HVDC Bipoles. Upon repeated follow-ups from NRLDC/NLDC regarding the revival of Bipoles it came to notice that the delay in restoration was on account of certain opportunity-based maintenance activities undertaken during the shutdown period. Such deviation from the approved shutdown and delay in restoration of critical inter-regional assets has serious implications on system security and reliability. Overloading of Bhiwani -ICT-2&3 and various transmission lines observed during the outage period of HVDC Champa-Kurukshetra Bipole.

Name of Elements	Approved Time and Date of start of shutdown	Actual Shutdown (Time and Date)	Approved Return Time and date of shutdown	Actual Return Time and date of shutdown	Delay Period
HVDC CK-1	06:00 (26.12.25)	06:30 (26.12.25)	06:00 (27.12.25)	20:40 (27.12.25)	14hr40min
HVDC CK-2	06:00 (26.12.25)	06:30(26.12.25)	06:00 (27.12.25)	21:32(27.12.25)	15hr32min
HVDC CK-3	14:00 (26.12.25)	14:30 (26.12.25)	18:00 (27.12.25)	22:16(27.12.25)	04hr16min
HVDC CK-4	14:00 (26.12.25)	14:30 (26.12.25)	18:00 (27.12.25)	05:32(28.12.25)	11hr32min

**(Table – Restoration delay in HVDC Champa-Kurukshetra Bipole)**

Letter from ED,NLDC dated 30.12.2025 issued to PGCIL regarding delay in restoration of HVDC Champa-Kurukshetra Bipoles is attached as Annexure-B.III of agenda.

***MS NRPC and CGM NRLDC expressed concern on the delays in returning shutdown of HVDC Champa-Kurukshetra bipoles as there was reduction in Northern Region import capability-2900 MW during the shutdown of one-Bipole and 5800 MW during the shutdown of both Bipoles. This also has severe impact on portfolio management by states.***

***POWERGRID representative informed that software upgradation was done which could not be completely tested during approved shutdown period. However, to complete the testing works, restoration was slightly delayed.***

***OCC forum asked all transmission utilities to abide by the approved shutdown timelines.***

## **B.10 Mock testing of islanding scheme and simulation studies**

Following four islanding schemes are operational in the Northern Region: NAPP Islanding Scheme (Uttar Pradesh), RAPP Islanding Scheme (Rajasthan), Bawana Islanding Scheme (Delhi), and Unchahar Islanding Scheme (Uttar Pradesh).

During 237 OCC meeting, NRLDC representative presented the latest status of actions required on various islanding schemes.

Scheme	UFR testing done	Basecase shared	SCADA display made
NAPP Islanding scheme (UP)	☑ Yes	☑ Yes	☑ Yes
RAPP Islanding scheme (Raj)	☑ Yes	☑ Yes	☑ Yes
Bawana Islanding scheme (Delhi) (Need Review)	☑ Yes	☑ Yes	☑ Yes

Unchahar scheme(UP)	Islanding	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
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***UP SLDC representative stated that Unchahar islanding scheme basecases have been shared from UP SLDC side on 12.01.2025 with NRLDC.***

***UP SLDC also submitted they have planned 4-5 other islanding schemes which have been submitted to NRLDC. It was requested that separate meeting may be convened by NRLDC/NRPC to discuss the same.***

***NRLDC representative further stated that mock testing of islanding schemes have been completed for calendar year 2025 but the same need to be carried out on yearly basis, so states may plan accordingly. Bawana islanding scheme of Delhi needs review with upcoming network changes due to commissioning of 765/400kV Narela substation.***

***DTL representative stated that they have recently shared the updated Delhi islanding scheme with NRPC.***

***OCC forum noted the same.***

#### **B.11 Numerous tripping of EHV lines during the fog conditions in Winter**

NRLDC has been highlighting the importance of carrying out insulator cleaning and replacing the porcelain/conventional insulators with polymer insulators particularly in the fog prone area. The same has been discussed in the past OCC meetings and recently in the 56<sup>th</sup> TCC and 81<sup>st</sup> NRPC meetings held on 30<sup>th</sup> and 31<sup>st</sup> October 2025 and in the 238<sup>th</sup> and 237<sup>th</sup> OCC meeting held on 17.12.2025 and 17.11.2025 respectively.

However, numerous EHV line trippings is being observed in this Winter season during foggy weather conditions in the Night and early morning hours. The list of EHV Line trippings from 01.12.2025 to 07.01.2026 is enclosed as Annexure-B.IV of agenda.

It is reiterated that the Northern Regional power transmission lines are exposed to high pollution levels along their routes. Such pollution levels with the onset of the winter season lead to frequent tripping and finally to breakdown and long outages of the transmission lines. These outages make the grid weak, thereby endangering the grid's reliability and security. Therefore, in order to avoid/mitigate tripping of lines during foggy (smog) weather in the winter season, preventive actions like cleaning/washing of insulators, replacement of conventional insulators with polymer insulators are again emphasized.

***MS NRPC and CGM NRLDC asked all utilities to go through the list and take up for replacement of porcelain insulator sections of the lines listed in Annexure with polymer insulators.***

***Constituents were asked to provide their input on the actions being taken at their end in view of numerous trippings observed during the fog conditions.***

***OCC forum discussed that the agenda may be discussed in detail in next protection sub-committee meeting.***

## **B.12 Frequent multiple elements tripping event at 400/220kV Kanpur(PG):**

Two major grid events have been reported at 400/220kV Kanpur(PG) during first week of January 2026 in which all the 400kV elements at Kanpur(PG) tripped. There was significant delayed clearance of fault during the events and protection system also didn't operate in coordination and as per desired operation. Brief of the grid events are as follows:

- a) **Multiple elements tripping on 05.01.2026:** At 00:29 hrs, all the 400kV elements at Kanpur(PG) along with 400kV Kanpur765-Lucknow(PG) D/C and STATCOM at Lucknow(PG) tripped. Event triggered due to stuck of B-ph pole of Main CB at Kanpur end of 400kV Kanpur-Ballabgharh line-I. As per PMU and DR received, B-N fault at 00:28:57:820 hrs with delayed clearance of **~440 msec** followed by R-N fault at 00:28:58:640 hrs with delayed clearance of **~1540 msec** is observed.
- b) **Multiple elements tripping on 07.01.2026:** At 16:47 hrs, all the 400kV elements at Kanpur(PG) tripped during bus fault on 400kV Bus-1. Fault occurred due to fall of jack bus conductor on 400kV Bus-1 & 2. As per PMU, R-Y-B-N fault at 16:47:53:320 hrs with delayed clearance of **~1560 msec** is observed.

***NRLDC representative highlighted following points w.r.t. grid events at Kanpur(PG):***

- a) *During both the events, fault cleared on back up protection after tripping of lines from remote end in Z-2/Z-3 and ICTs on back up impedance / earth fault protection.*
- b) *Bus bar protection failed to operate during both the events, leading to significant delayed clearance of fault.  
Reason of non-operation of bus bar protection need to be shared.*
- c) *400kV Kanpur-Kanpur765 D/C tripped in Z-3 during both the events which should have tripped in Z-2. As informed by POWERGRID(NR-3), reactance of Line Series Reactor (LSR) at Kanpur(PG) end hasn't been considered in distance protection setting. This might be the reason of underreach of Z-2 distance protection.*

*Distance protection setting (Z-2) of 400kV Kanpur-Kanpur765 D/C need to be reviewed. Philosophy for distance protection setting in case of LSR need to be discussed.*

- d) *Tie CBs at Kanpur(PG) end also tripped during the first event. As there was no protection operation due to which Tie CB should trip at Kanpur(PG). Reason of opening of Tie CBs at Kanpur(PG) need to be shared.*

*Multiple non-operation of protection system observed during this grid event. Such grid events affect security and reliability of the grid. POWERGRID(NR-3) was requested to share the detailed analysis of the grid events.*

*MS NRPC also raised concern over the grid event at Kanpur(PG) and requested POWERGRID to share their observations w.r.t. the grid event and details of corrective actions taken to avoid such event in future.*

*POWERGRID(NR-3) representative stated that CB of 400kV Kanpur-Ballabgarh line-I at Kanpur(PG) end which stuck during the event was retrofitted during 2019-20. Bus bar protection relay at Kanpur(PG) is of electromechanical type. Upgradation work of 400/220kV Kanpur(PG) substation to digital substation with process bus system is under process. Distance protection setting of 400kV Kanpur-Kanpur765 D/C at 765/400kV Kanpur(PG) in view of Fixed Series Reactor at Kanpur(PG) end is under review. Detailed analysis of the event shall be shared by 19.01.2026.*

*NRLDC also highlighted that on 07.01.2026, bus bar protection testing was also going on at Kanpur(PG). However, no code was taken for the testing exercise. POWERGRID was requested to ensure taking code for such testing related work. POWERGRID agreed for the same.*

*NRPC members highlighted that as per IEGC clause 37.2 (e), detailed report of the event needs to be submitted within one (1) week of the occurrence of event to RLDC and RPC. Compliance w.r.t. reporting and analysis of grid events need to be ensured.*

*NRLDC requested POWERGRID to share the detailed analysis of the event along with details of remedial action taken to avoid such event in future.*

***OCC forum requested POWERGRID to take necessary corrective actions w.r.t. protection system at 400/220kV Kanpur(PG). Any shortcoming in protection system needs to be resolved on priority so that such events won't occur in future. Further, detailed analysis of the event shall be discussed in upcoming protection sub-committee meeting also.***

### **B.13 Frequency response performance for the reportable events of month of December 2025:**

During the month of **December 2025**, **1 no. of reportable event** was notified by NLDC for which FRC/ FRP need to be calculated. Description of the event is as given in the Table below:

S. No.	Event Date	Time (In hrs.)	Event Description	Starting Frequency (in Hz)	Nadir Frequency (in Hz)	End Frequency (in Hz)	$\Delta f(Hz)$	NR FRP during the event
1	16-Dec-25	06:34 hrs	As reported, at 06:34 hrs on 16th December 2025, generation loss event of 1252 MW occurred at Obra_C TPS, NR. Hence generation loss of 1252 MW is considered for FRC/FRP Calculation.	50.065	49.939	50.027	-0.038	1.79

As per IEGC 2023 Clause 30.8, "The primary response of the generating units shall be verified by the Load Despatch Centres (LDCs) during grid events. The concerned generating station shall furnish the requisite data to the LDCs within two days of notification of reportable event by the NLDC."

As per IEGC 2023 Clause 30.10.(n), "Each control area shall assess its frequency response characteristics and share the assessment with the concerned RLDC along with high resolution data of at least 1 (one) second for regional entity generating stations and energy storage systems and 10 (ten) seconds for the state control area."

As per sub-clause (a(v)) of clause (9) of IEGC 2023 Annexure-2, "All the SLDCs shall work out FRC for all the intra-state entities (for events indicated by the Regional Load Despatch Centres) based on the HDR available at their respective SLDCs and submit the same to respective RLDC within six (6) working days after the event. (Format as per Table-B)."

As per sub-clause (a(vi)) of clause (9) of IEGC 2023 Annexure-2, "All regional entity generating stations shall also assess the FRC for their respective stations and submit the same to respective RLDC within six (6) working days. (Format as per Table-B). The high-resolution data (1 second or better resolution) of active power generation and frequency shall also be shared with RLDC."

**Members were requested to share the FRC/FRP computation of their respective control area as per the timeline specified in IEGC 2023.**

Status of details received from constituents and FRP values as considered for the events of **December 2025** are attached as Annexure-B.V of agenda.

***NRLDC representaitve higlighted the list of generating stations and control area who haven't shared the FRC/FRP computation details. Details are pending from SLDC-Rajasthan, SLDC-Uttarakhand, NTPC (Singrauli TPS), NHPC (Sainj HEP, Uri-2 HEP), BBMB (Dehar HEP, Bhakhr HEP) and Budhil HEP. Members were requested to share the FRC/FRP computation as per timeline.***

***Further it was also highlighted that only UP, Punjab and Haryana are submitting FRC/FRP computation of generating stations of their respective control area. Other SLDCs were also requested to compute FRC/FRP of their respective control area and submit the FRC/FRP computation to NRLDC as per timeline specified in IEGC.***

***NRLDC requested SLDCs and generating stations to share the FRC / FRP compuation of their respecive control area as per stipulated timeline.***

***NTPC representative informed that Anta, Auraiya and Dadri GPS was not running during the event.***

***NRLDC member also highlighted the persistent issue of partial data submission from Singrauli TPS. NTPC was requested to share the complete plant data of Singrauli TPS otherwise it can't be considered for FRP computatuion. Presently, data of only 2 units are being submitted by Singrauli TPS.***

***NTPC representaitve agrred to share the complete FRC data of Singrauli TPS.***

Frequency Response Performance (FRP) of generating stations for each reportable event are calculated based on the submitted high resolution data from generating stations. However, the generating stations for which data is not received **till 06<sup>th</sup> January 2025**, FRC/FRP as per NRLDC HDR data is used for computation of Average Monthly Frequency Response Performance, Beta ' $\beta$ ' for Generating Stations.

**From the FRP data, it is observed that FRP of many of the control areas are not satisfactory. Therefore, it is requested to review the FRC/FRP, governor actions of your respective control area, necessary actions may be taken for improvement in the FRC/FRP.**

***Memebers were requested to analyse the frequency response of their respective control area and share the FRC/FRP analysis of generating stations along with unit wise 01 sec data as per timeline for ensuring IEGC compliance.***

***NRLDC highlighted the unsatisfactory response of some of the generating stations during the event. As per FRC/FRP computation details received from SLDCs, it was highlighted that FRP of most of the generating stations of UP control area is poor or unsatisfactory. Necessary remedial actions need to be taken to improve the FRP of generating stations.***

***Members were requested to take necessary remedial actions to improve the governor response. PFR testing (governor tuning) may also be conducted if required. The IEGC clause 40.2(c) also mandates governor testing once every five (5) years or whenever major retrofitting is done.***

#### **B.14 Mock trial run and testing of black start facilities at generating stations in Northern Region**

As per Indian Electricity Grid Code (IEGC) clause 34.3

***“ Detailed procedures for restoration post partial and total blackout of each user system within a region shall be prepared by the concerned user in coordination with the concerned SLDC, RLDC or NLDC, as the case may be. The concerned user shall review the procedure every year and update the same. The user shall carry out a mock trial run of the procedure for different sub-systems including black-start of generating units along with grid forming capability of inverter based generating station and VSC based HVDC black-start support at least once a year under intimation to the concerned SLDC and RLDC. Diesel generator sets and other standalone auxiliary supply source to be used for black start shall be tested on a weekly basis and the user shall send the test reports to the concerned SLDC, RLDC and NLDC on a quarterly basis”.***

Hydro and gas-based plants are capable of self-black-start. Conducting periodic mock black start exercises are extremely important to ensure the healthiness of black start facilities and also to build awareness as well as confidence among the system operators.

In view of above, regional entity generating stations shall conduct the dead bus charging of their units on rotation basis as per availability of schedule under intimation to the NRLDC. Testing of Diesel generator sets and other standalone auxiliary supply source to be used for black start shall also be done on a weekly basis. SLDC shall also ensure the same in their respective control area. This will ensure the healthiness of blackstart facility at generating stations. Further, NRLDC shall coordinate with the ISGS and states to conduct the mock black start exercise of subsystems.

Therefore, regional entity generating stations and SLDCs are requested to share the annual schedule plan for conducting dead bus charging / mock black start exercise of generating stations /sub-systems during 2025-26. The present status of mock black

start of generating units is attached as Annexure-B.VI of agenda. Constituents are also requested to share the test report of diesel generators / auxiliary supply on a quarterly basis.

NRLDC informed the forum about present status of mock black start exercises conducted during 2025-26 in Norther Region:

Sr. No.	Name of Generating station	Date of Mock Black Start Exercise conducted
1.	Parbati_III HEP	17.05.2025
2.	Sewa_II HEP	16.05.2025
3.	Rihand & Obra HEP(UP)	02.06.2025
4.	Ramgarh GPS	11.05.2025
5.	RSD HEP(Punjab)	01.12.2025
6.	Tehri HEP	11.11.2025

*All the ISGS and states were requested to conduct the mock black start exercise of black start facilities at their end and share the mock test report after conducting the exercise.*

***NRLDC representative presented the status of mock black start exercises in NR and requested ISGS and SLDCs to take following actions:***

- ***share the report of testing of DG sets.***
- ***The plants who have not conducted the mock black start exercise since 2024 were requested to conduct the mock black exercise on priority.***
- ***share the tentative schedule of mock black start exercise of generating stations in their respective control area.***
- ***SLDCs were requested to share the tentative schedule plan of mock black start exercise of generating stations in their respective control area.***
- ***conduct dead bus charging after self-starting the generating station if schedule with load is not available.***
- ***share the test report of mock black start exercise conducted along with weekly DG testing on monthly/quarterly basis.***

***OCC forum requested all the concerned generating stations and States to conduct the mock black start exercise of black start facilities in your respective control area. Members were also requested to share the report of mock black start exercises after conducting and testing of DG sets on quarterly basis.***

### **B.15 Revision of document for System Restoration Procedure Document of Northern Region:**

NRLDC has been issuing '**System Restoration Procedure Document of Northern Region**' on annual basis. The document was last revised on 31<sup>st</sup> Jan 2025 & updated document is available on NRLDC website in document section, the weblink of the same is as below:

<https://nrlcdc.in/documents/Documents>

The document is password protected and password has already been informed to all the NR constituents.

In view of new addition/modification of transmission & generation element in NR grid since Jan'25, the document is being reviewed for update.

In this regard, NRLDC through letter dated 01.01.2026 requested all the constituents to share the details by 10.01.2026. Details have been received **from AD Hydro HEP, SLDC-Delhi only**.

*NRLDC requested all the constituents / utilities to share the details w.r.t. your respective control area at the earliest possible, so that System Restoration Procedure Document 2026 can be updated and compiled within stipulated time.*

*It was also requested to all the states to prepare System Restoration Procedure Document for their respective control area also which will be helpful for Grid Operation.*

**OCC forum requested all the constituents to provide feedback, suggestions and updated information by 20<sup>th</sup> Jan 2026.**

### **B.16 Revision of document for System Protection Scheme Document of Northern Region:**

NRLDC has been issuing '**System Protection Scheme Document of Northern Region**' on annual basis. The document was last revised on 31<sup>st</sup> Jan 2025 & updated document is available on NRLDC website in document section, the weblink of the same is as below:

<https://nrlcdc.in/documents/Documents>

The document is password protected and password has already been informed to all the NR constituents.

In view of new addition/modification of transmission & generation element in NR grid and revision in existing SPS, addition of new SPS and review of SPS, since Jan'25, the document is being reviewed for update.

NRLDC representative apprised the forum that, in view of elements augmentation / new elements charging / reconfiguration in network, existing SPS were reviewed. Major changes in SPS in NR are as follows:

- a. SPS at 400/220kV Gorakhpur(PG), Ballabgarh(PG) and Gr. Noida(UP) shall be disabled. *(ICT augmentation and N-1 compliant)*
- b. Existing SPS at NAPS (mentioned in document): As reported by SLDC-UP, current SPS is not in service and review is being done whether SPS is required at NAPS or not.

NRLDC comment: As per study of NRLDC team, under N-1 contingency of any one of 220 kV Mainpuri (PG)–Etah line, 220 kV Moradabad–Sambhal line, or 220 kV NAPP–Sambhal line, no immediate overloading is observed on the transmission elements in and around the NAPP complex. In view of this, the SPS envisaged for the said contingencies may be disabled. However, confirmation and inputs from UP SLDC may also be sought in this regard.

Therefore, SPS mentioned in document shall be removed.

**c. SPS for safe evacuation of Ropar TPS:**

NRLDC comment: The overall Ropar evacuation system remains N-1 compliant for both the 220 kV Ropar–Mohali and 220 kV Ropar–Kharar circuit outages. Given that the evacuation network meets N-1-1 reliability criteria, the need for an SPS at Ropar appears redundant under the current network configuration.

Punjab comment: Present SPS system is faulty and considering present status of running of GGSSTP units on low plant factor and further connectivity of 220Kv substation with newly installed 400kV substation during last year, it is felt that there will be no problem in evacuation of power through outgoing feeders.

***Constituents were requested to provide feedback, suggestions and updated information by 20<sup>th</sup> Jan 2026.***

## ANNEXURE-A-P

## Attendance 239th OCC Meeting of NRPC on 16.01.2026

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1	NRPC	Rishika Sharan	Member Secretary	rishika@nic.in
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24	BBMB	Sh. Jatinder Singh	AEE	dypowerc@bbmb.nic.in
25	DELHI SLDC	Sh. Ashok Kumar	AGM(T) System Operation	dgmsodelhisldc@gmail.com
26	RRVUNL	Sh. Sanjay Joshi	Executive Engineer	sanjay_49947@rrvun.com
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49	MEIL Anpara	Wasim Ahmed	sr DGM	WASIM.AHMED@MEILANPARAPOWER.COM
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59	DTL	Satish Kumar Singh	DGM (T)	
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Status of action taken on decision of 238<sup>th</sup> OCC meeting of NRPC

S.N.	Agenda	Decision of 238 <sup>th</sup> OCC meeting of NRPC	Status of action taken
1.	Request for charging of 220/66KV, 50MVA ICT-2 at Drass Station (Agenda by LPDD)	OCC forum asked CTUIL to provide the connection agreements as soon as minutes of CEA meeting are issued in the meantime LPDD was advised to complete the remaining formalities for FTC clearance to expedite the process.	NRLDC representative informed that FTC clearance has been provided and the ICT is already charged.

## Follow up issues from previous OCC meetings

Annexure-A. II

1	Down Stream network by State utilities from ISTS Station	Augmentation of transformation capacity in various existing substations, addition of new substations along with line bays as well as requirement of line bays by STUs for downstream network are under implementation at various locations in Northern Region. Further, 220kV bays have already been commissioned at various substations in NR. For its utilization, downstream 220kV system needs to be commissioned.	List of downstream networks is enclosed in <b>Annexure-A. II. I.</b>																																
2	Progress of installing new capacitors and repair of defective capacitors	Information regarding installation of new capacitors and repair of defective capacitors is to be submitted to NRPC Secretariat.	<p>Data upto following months, received from various states / UTs:</p> <table border="1" data-bbox="967 821 1559 1100"> <tr><td>⊙ CHANDIGARH</td><td>Sep-2019</td></tr> <tr><td>⊙ DELHI</td><td>Dec-2025</td></tr> <tr><td>⊙ HARYANA</td><td>Sep-2025</td></tr> <tr><td>⊙ HP</td><td>Oct-2025</td></tr> <tr><td>⊙ J&amp;K and LADAKH</td><td>Not Available</td></tr> <tr><td>⊙ PUNJAB</td><td>Nov-2025</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Dec-2025</td></tr> <tr><td>⊙ UP</td><td>Dec-2025</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Dec-2025</td></tr> </table> <p>All States/UTs are requested to update status on monthly basis.</p>	⊙ CHANDIGARH	Sep-2019	⊙ DELHI	Dec-2025	⊙ HARYANA	Sep-2025	⊙ HP	Oct-2025	⊙ J&K and LADAKH	Not Available	⊙ PUNJAB	Nov-2025	⊙ RAJASTHAN	Dec-2025	⊙ UP	Dec-2025	⊙ UTTARAKHAND	Dec-2025														
⊙ CHANDIGARH	Sep-2019																																		
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3	Healthiness of defence mechanism: Self-certification	<p>Report of mock exercise for healthiness of UFRs carried out by utilities themselves on quarterly basis is to be submitted to NRPC Secretariat and NRLDC. All utilities were advised to certify specifically, in the report that “All the UFRs are checked and found functional” .</p> <p>In compliance of NPC decision, NR states/constituents agreed to raise the AUFRR settings by 0.2 Hz in 47th TCC/49th NRPC meetings.</p>	<p>Data upto following months, received from various states / UTs:</p> <table border="1" data-bbox="967 1253 1559 1566"> <tr><td>⊙ CHANDIGARH</td><td>Not Available</td></tr> <tr><td>⊙ DELHI</td><td>Dec-2025</td></tr> <tr><td>⊙ HARYANA</td><td>Sep-2025</td></tr> <tr><td>⊙ HP</td><td>Nov-2025</td></tr> <tr><td>⊙ J&amp;K and LADAKH</td><td>Not Available</td></tr> <tr><td>⊙ PUNJAB</td><td>Dec-2025</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Dec-2025</td></tr> <tr><td>⊙ UP</td><td>Dec-2025</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Dec-2025</td></tr> <tr><td>⊙ BBMB</td><td>Dec-2025</td></tr> </table> <p>All States/UTs are requested to update status for healthiness of UFRs on monthly basis for islanding schemes and on quarterly basis for the rest.</p> <p>Status:</p> <table border="1" data-bbox="967 1738 1559 1921"> <tr><td>⊙ CHANDIGARH</td><td>Not Available</td></tr> <tr><td>⊙ DELHI</td><td>Increased</td></tr> <tr><td>⊙ HARYANA</td><td>Increased</td></tr> <tr><td>⊙ HP</td><td>Increased</td></tr> <tr><td>⊙ J&amp;K and LADAKH</td><td>Increased</td></tr> <tr><td>⊙ PUNJAB</td><td>Increased</td></tr> </table>	⊙ CHANDIGARH	Not Available	⊙ DELHI	Dec-2025	⊙ HARYANA	Sep-2025	⊙ HP	Nov-2025	⊙ J&K and LADAKH	Not Available	⊙ PUNJAB	Dec-2025	⊙ RAJASTHAN	Dec-2025	⊙ UP	Dec-2025	⊙ UTTARAKHAND	Dec-2025	⊙ BBMB	Dec-2025	⊙ CHANDIGARH	Not Available	⊙ DELHI	Increased	⊙ HARYANA	Increased	⊙ HP	Increased	⊙ J&K and LADAKH	Increased	⊙ PUNJAB	Increased
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4	Status of Automatic Demand Management System in NR states/UT's	The status of ADMS implementation in NR, which is mandated in clause 5.4.2 (d) of IEGC by SLDC/SEB/DISCOMs is presented in the following table:	The status of ADMS implementation in NR is enclosed in <b>Annexure-A.II.II.</b>																																		
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5	Status of availability of ERS towers in NR	As per the decision of 68th NRPC and 211th OCC meeting, ERS availability monitoring is being taken as rolling/follow-up agenda in OCC meetings for regular monitoring of ERS under different utilities in Northern region.	As per the information received from different utilities in Northern region, updated status of availability of ERS towers in Northern Region attached as <b>Annexure-A.II.III.</b>																																		
6	Submission of breakup of Energy Consumption by the states	All states/UTs are requested to submit the requisite data as per the billed data information in the format given as under:	Status of the information submission (month) from states / utilities is as under:																																		
		<table border="1"> <thead> <tr> <th>Category→</th> <th>Consumption by Domestic Loads</th> <th>Consumption by Commercial Loads</th> <th>Consumption by Agricultural Loads</th> <th>Consumption by Industrial Loads</th> <th>Traction supply load</th> <th>Miscellaneous / Others</th> </tr> </thead> <tbody> <tr> <td>&lt;Month&gt;</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Category→	Consumption by Domestic Loads	Consumption by Commercial Loads	Consumption by Agricultural Loads	Consumption by Industrial Loads	Traction supply load	Miscellaneous / Others	<Month>							<table border="1"> <thead> <tr> <th>State / UT</th> <th>Upto</th> </tr> </thead> <tbody> <tr> <td><input type="radio"/> CHANDIGARH</td> <td>Not Submitted</td> </tr> <tr> <td><input type="radio"/> DELHI</td> <td>Oct-25</td> </tr> <tr> <td><input type="radio"/> HARYANA</td> <td>Nov-25</td> </tr> <tr> <td><input type="radio"/> HP</td> <td>Nov-25</td> </tr> <tr> <td><input type="radio"/> J&amp;K and LADAKH</td> <td>JPDCL- Mar' 24 KPDCL- Not Submitted</td> </tr> <tr> <td><input type="radio"/> PUNJAB</td> <td>Nov-25</td> </tr> <tr> <td><input type="radio"/> RAJASTHAN</td> <td>Aug-25</td> </tr> <tr> <td><input type="radio"/> UP</td> <td>Oct-25</td> </tr> <tr> <td><input type="radio"/> UTTARAKHAND</td> <td>Mar-25</td> </tr> </tbody> </table>	State / UT	Upto	<input type="radio"/> CHANDIGARH	Not Submitted	<input type="radio"/> DELHI	Oct-25	<input type="radio"/> HARYANA	Nov-25	<input type="radio"/> HP	Nov-25	<input type="radio"/> J&K and LADAKH	JPDCL- Mar' 24 KPDCL- Not Submitted	<input type="radio"/> PUNJAB	Nov-25	<input type="radio"/> RAJASTHAN	Aug-25	<input type="radio"/> UP	Oct-25	<input type="radio"/> UTTARAKHAND	Mar-25
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			Chandigarh is requested to submit the requisite data w.e.f. April 2018 as per the billed data information in the given format																																		

9	Reactive compensation at 220 kV/ 400 kV level at 5 substations			
	State / Utility	Substation	Reactor	Status
i	DTL	Mundka	1x125 MVAR at 400 kV & 1x25 MVAR at 220 kV	Bay work completed on 25.03.2023. Reactor part tender is dropped and at present same is under revision.
ii	DTL	Bamnauli	2x25 MVAR at 220 kV	Bay work completed on 25.03.2023. Reactor part tender is dropped and at present same is under revision.
iii	DTL	Indraprastha	2x25 MVAR at 220 kV	Bay work completed on 07.11.2023. Reactor part tender is dropped and at present same is under revision.
iv	DTL	Electric Lane	1x50 MVAR at 220 kV	Under Re-tendering due to Single Bid
v	PTCUL	Kashipur	1x125 MVAR at 400 kV	The Letter of Award for "Procurement of 125 MVAR Reactor, Online DGA, ODS, NIFPS along with its accessories at 400 KV Sub-station Kashipur" against Tender Specification no. PTCUL/E-Tender/C&P-II/SS-12/2024-25 has been issued to M/s Bharat Heavy Electricals Limited, New Delhi on 26.06.2025.

## 1. Down Stream network by State utilities from ISTS Station:

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
1	400/220kV, 3x315 MVA Samba	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• Network to be planned for 2 bays.	-	02 No. of bays shall be utilized for LILO-II of 220kV Jatwal-Bishnah Transmission Line, the work of which is expected to begin on 16th July 2025. Updated in 233rd OCC by JKPTCL.
2	400/220kV, 2x315 MVA New Wanpoh	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• 220 kV New Wanpoh - Alusteng D/c Line	Mar'25	02 No. of bays are to be utilized for connecting 220kV New Wanpoh-Alusteng D/c Line. RoW issues persisting; At present new-wanpoh-mirbazar 5km and harwan-alstung 16km have been completed, expected date of completion is Mar 2025 subject to availability of funds and resolving of RoW issues), Updated in 214th OCC by JKPTCL.
				• 220 kV New Wanpoh - Mattan D/c Line	End of 2024	02 No. of bays are to be utilized for connecting 220kV New Wanpoh-Mattan D/c Line. The funding source for the project is being identified and the project is expected to be completed by ending 2024. Updated in 204th OCC by JKPTCL.
3	400/220kV, 2x315 MVA Amargarh	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• 220kV D/C line from 400/220kV Kunzar - 220/33kV Sheeri	End of 2024	02 No. of bays are proposed to be utilized for connecting 220/132 kV GSS Loolipora. The funding source for the project is being identified and the project is expected to be completed by ending 2024. Updated in 204th OCC by JKPTCL.
4	400/220kV, 2x500 MVA Kurukshetra (GIS)	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• 220kV Bhadson (Kurukshetra) – Ramana Ramani D/c line	Commissioned	Updated by HVPNL in 235th OCC.
5	400/220 kV, 2x315 MVA Dehradun	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• Network to be planned for 4 bays	-	PTCUL to update the status.
6	Shahjahanpur, 2x315 MVA 400/220 kV	Commissioned: 6 Approved/Under Implementation:1	Utilized: 7	• 220 kV D/C Shahjahanpur (PG) - Gola line	Commissioned	Energization date: 26.10.2023 updated by UPPTCL in 215th OCC
				• LILO of Sitapur – Shahjahanpur 220 kV SC line at Shahjahanpur (PG)	Commissioned	Energization date: 25.02.2022 updated by UPPTCL in 196th OCC
7	Hamirpur 400/220 kV Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• 220 kV Hamirpur-Dehan D/c line	Commissioned	HPPTCL has commissioned the Planned 220kV Dehan-Hamirpur TL utilizing 2 No. 220kV Bays.Commissioned date: 09.06.2022. Updated in 198th OCC by HPPTCL
				• Network to be planned for 4 bays	-	HPPTCL to update the status.
8	Sikar 400/220kV, 1x 315 MVA S/s	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• LILO of 220 kV Sikar (220 kV GSS)-Dhod S/c line at Sikar (PG)	Commissioned	LILO of 220 kV S/C Sikar-Dhod line at 400 kV GSS PGCIL, Sikar has been charged on dt. 31.03.2022
				• Network to be planned for 2 bays.	-	Against the 3rd ICT at 400 kV GSS Sikar, only 2 bays were constructed and same has been utilized by RVPN by constructing LILO of 220 kV S/C Sikar – Dhod line as updated by RVPNL in 195th OCC
9	Bhiwani 400/220kV S/s	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• 220 kV D/C line Bhiwani (PG) – Bhiwani (HVPNL) line	Commissioned	Updated in 202nd OCC by HVPNL
				• 220 kV Bhiwani (PG) - Isherwal (HVPNL) D/c line.	Jan'26	Line work already completed. Signing of Connectivity agreement with CTU is under process. Likely to be commissioned by end of January-2026 as intimated in 239th OCC by HVPNL.
				• 220 kV Bhiwani (PG) - Dadhibana (HVPNL) D/c line.	Mar'26	Line work awarded to M/s R S Infra Projects Pvt. Ltd. Noida, Uttar Pradesh on dated 09.03.2024. Work of route plan and route alignment has been started by the firm as intimated in 234th OCC by HVPNL.
10	Jind 400/220kV S/s	Commissioned: 4 Approved:4 Total: 8	Utilized: 4 Unutilized: 0	• LILO of both circuits of 220 kV Jind HVPNL to PTPS D/C line at 400 kV substation PGCIL Khatkar (Jind) with 0.5 sq inch ACSR conductor	Mar'26	220kV Jind PG - Jind D/C line commissioned. Further, 220kV Jind PG - Nain (HVPNL) D/C will be commissioned after completion of new 220kV Substation Nain (HVPNL) which is under construction. And likely to be commissioned by 15.03.2026.
11	400/220kV Tughlakabad GIS	Commissioned: 6 Under Implementation: 4	Utilized: 6 Unutilized: 0	• RK Puram – Tughlakabad (UG Cable) 220kV D/c line – March 2023.	Commissioned	Updated in 216th OCC by DTL
				• Masjid Mor – Tughlakabad 220kV D/c line.	Commissioned	Updated in 216th OCC by DTL
12	400/220kV Kala Amb GIS (TBCB)	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 2 Under Implementation:2	• HPPTCL has planned one no. of 220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Kala Amb S/s	Commissioned	Energization date: 31.05.2024 updated by HPPTCL in 220th OCC
				• HPPTCL has planned one no. of 220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Giri S/s	-	Tendering process is yet to be started.Updated in 219th OCC by HPPTCL
				• Network to be planned for 2 bays	-	HPPTCL to update the status.
13	400/220kV Kadarpur Sub-station	Commissioned: 8 Total: 8	Utilized: 0 Unutilized: 8	• D/C line Kadarpur - Pali D/C line Kadarpur - Sec-65	Commissioned	Updated in 232nd OCC by HVPNL <b>Status:-</b> A-formats for FTC of line submitted on FTC portal of NRLDC on dated 09.04.25.

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
14	400/220kV Sohna Road Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• LILO of both circuits of 220kV D/c Sohna-Rangla Rajpur at Roj Ka Meo line at 400kV Sohna Road	Mar'26	Line work completed, Substation is under construction. However, this arrangement will not lead to usage of additional bays i.e. no of utilised bays at Sohna road will remain same.Updated in 230th OCC by HVPNL
				• LILO of both circuits of 220kV D/c Badshahpur-Sec77 line at 400kV Sohna Road	-	The matter is subjudice in Hon'ble Punjab & Haryana High court, Chandigarh Updated in 228th OCC by HVPNL. <b>Status:-</b> Earlier 02 nos 220 kV line bays were to be utilized for the 220 kV GIS S/Stn. Sec-77, Gurugram but due to denotification of land of the 220 kV GIS S/Stn. Sec-77 the said substation is now going to be dismantled and a new substation is proposed at Sec-75A, Gurugram. Now, these 02 no. 220 kV line bays may be utilized at 220 kV GIS S/Stn Sec-75A, Gurugram.
15	400/220kV Prithla Sub-station	Commissioned: 8 Approved: 2 Total: 10	Utilized: 4 Unutilized: 4 Under Implementation:2	• 220kV D/C line from Prithla to Harfali with LILO of one circuit at 220kV Meerpur Kurali	Mar'26	Contract awarded on 08.08.23 to M/s Skipper with completion in December 25. Likely date of commissioning of the project has been revised as 31.03.2026 due to slow progress of the work by the firm. Updated in 238th OCC by HVPNL
				• LILO of both ckt of 220kV D/c Ranga Rajpur – Palwai line	Commissioned	Energization date: 31.12.2021. Updated in 198th OCC by HVPNL
				• 220kV D/C for Sector78, Faridabad	Mar'26	Issue related to ROW. Likely date of commissioning of the project has been revised as 31.03.2026 due to slow progress of the work by of the firm.
				• Prithla - Sector 89 Faridabad 220kV D/c line	Mar'26	Stringing is in progress at TL No.25 to 35 of Prithla - Sector 78 section as updated in 238th OCC by HVPNL
16	400/220kV Sonapat Sub-station	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 2 Unutilized: 4 Under Implementation:2	• LILO of both circuits of 220kV Samalkha - Mohana line at Sonapat	Commissioned	Commissioned as updated by HVPNL in 233rd OCC
				• Sonapat - HSIISC Rai 220kV D/c line	Commissioned	Energization date: 31.05.2024 updated by HVPNL in 220th OCC
				• Sonapat - Kharkhoda Pocket A 220kV D/c line	Commissioned	Commissioned on dated 02.12.2025
17	400/220kV Neemrana Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• LILO of Bhiwadi - Neemrana 220kV S/c line at Neemrana (PG)	-	Work is under progres. Stub Setting: 14/2017. Permission for Highway is awaited from concerned department as updated in 218th OCC by RVPNL.
18	400/220kV Kotputli Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Kotputli - Pathreda 220kV D/c line	-	Date of bid opening has been extended up to 30.04.2024 as updated in 218th OCC by RVPNL.
19	400/220kV Jalandhar Sub-station	Commissioned: 10 Total: 10	Utilized: 8 Unutilized: 2	• LILO of 220 kV BBMB Jalandhar - Butari line at 400 kV PGCIL Jalandhar	-	LILO of 220 kV BBMB Jalandhar - Butari line at 400 kV PGCIL Jalandhar is under consideration with upcoming CMETS-NR as updated by PSTCL in 238th OCC
20	400/220kV Roorkee Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Roorkee (PG)-Pirankaliyar 220kV D/c line	Commissioned	Roorkee (PG)-Pirankaliyar 220kV D/c line commissioned in 2020 as intimated by PTCUL in 197th OCC
21	400/220kV Lucknow Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• Network to be planned for 2 bays	Commissioned	• Lucknow -Kanduni, 220 kV D/C line work energized on 05.10.2023. Updated in 212th OCC by UPPTCL. • No planning for 2 no. of bays upated by UPPTCL in 196th OCC. The same has been communicated to Powergrid.
22	400/220kV Gorakhpur Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Network to be planned for 2 bays	Commissioned	• Gorakhpur(PG)- Maharajanji, 220 kV D/C line energized on 27.09.2023 updated by UPPTCL in 212th OCC
23	400/220kV Fatehpur Sub-station	Commissioned: 8 Under Implementation:2 Total: 10	Utilized: 6 Unutilized: 2 Under Implementation:2	• Network to be planned for 2 bays	-	• UPPTCL intimated that 02 no. of bays under finalization stage. In 201st OCC, UPPTCL intimated that it is finalized that Khaga s/s will be connected (tentative time 1.5 years). • No planning for 2 no. of bays updated by UPPTCL in 196th OCC. The same has been communicated to Powergrid.
24	400/220kV Abdullapur Sub-station	Commissioned: 10 Under Implementation:2 Total: 12	Utilized: 10 Unutilized: 0 Under Implementation:2	• Abdullapur – Rajokheri 220kV D/c line	Commissioned	Ckt-1 commissioned at 16:13hrs on dated 06.08.24 & Ckt-2 commissioned at 20:10 hrs on dated 05.08.24. Updated in 223rd OCC by HVPNL
25	400/220kV Pachkula Sub-station	Commissioned: 8 Under tender:2 Total: 10 Out of these 10 nos. 220kV	Utilized: 2 Unutilized: 4 Under Implementation:2	• Panchkula – Pinjore 220kV D/c line	Commissioned	Updated in 218th OCC by HVPNL
				• Panchkula – Sector-32 220kV D/c line	Commissioned	Energization date: 24.05.2024 updated by HVPNL in 220th OCC
				• Panchkula – Raiwali 220kV D/c line	Commissioned	Updated in 194th OCC by HVPNL
				• Panchkula – Sadhaura 220kV D/c line: Sep'23	Jan'26	Revised target date as confirmed by concerned XEN TS, Panchkula.Updated in 234th OCC by HVPNL

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
26	400/220kV Amritsar S/s	Commissioned:7	Utilized: 6 Under Implementation:2	• Amritsar – Patti 220kV S/c line	31.01.2026	Commissioning of 220kv S/C Amritsar -Patti S/c and 220kV Amritsar – Rashiana S/c may be done by 31.01.2026. Updated in 238th OCC by PSTCL.
		Approved in 50th NRPC- 1 no. Total: 8		• Amritsar – Rashiana 220kV S/c line (2 bays shall be required for above lines. However, 1 unutilized bay shall be used for Patti and requirement of one additional bay approved for Rashiana by NRPC)	31.01.2026	Draft connectivity agreements for 220kV Rashiana- Amritsar & 220kV Patti-Amritsar lines are under consideration by CTU. CTU is processing the agreement and PSTCL has provided with the requisite inputs/data to CTU. Updated in 238th OCC by PSTCL.
27	400/220kV Bagpat S/s	Commissioned: 8 Total: 8	Utilized:6 Unutilized: 2	• Bagpat - Modipuram 220kV D/c line	Commissioned	Updated in 201st OCC by UPPTCL
28	400/220kV Bahadurgarh S/s	Commissioned: 4 Approved: 4 Total: 8	Utilized:2 Unutilized: 2	• LILO of 220 kV Nunamajra- Daultabad S/c line at 400 kV Bahadurgarh PGCIL	-	Proposal turned down by CEA.Updated in 230th OCC by HVPNL.
				• Bahadurgarh - METL 220kV D/c line (Deposit work of M/s METL)	15.06.2026	Updated in 230th OCC by HVPNL. <b>Status:</b> The work stands awarded to the M/s KRR and the execution work has been started at site. Partial route stands approved by the competent authority of the HVPNL. Further, 06 no. Foundation has been casted.
				• Bahadurgarh - Kharkhoda Pocket B 220kV D/c line	30.06.2026	Updated in 234th OCC by HVPNL. <b>Status:</b> RoW issues which are being resolved with the help of Duty Magistrate.
29	400/220kV Jaipur (South) S/s	Commissioned: 4 Total: 4	Utilized:2 Unutilized: 2	• LILO of 220 kV S/C Dausa – Sawai Madhopur line at 400 kV GSS Jaipur South (PG)	06.10.2025	Work order has been issued on 06.10.2023, work under progress as updated by RVPNL in 215th OCC
30	400/220kV Sohawal S/s	Commissioned: 8 Total: 8	Utilized: 8	• Sohawal - Barabanki 220kV D/c line	Commissioned	Energization date: 14.04.2018 updated by UPPTCL in 196th OCC
				• Sohawal - New Tanda 220kV D/c line	Commissioned	Energization date: 28.05.2019 updated by UPPTCL in 196th OCC
				• Network to be planned for 2 bays	Commissioned	• Sohawal - Gonda 220kV S/c line (Energization date: 27.04.2020) updated by UPPTCL in 196th OCC • Sohawal - Bahraich 220kV S/c line (Energization date: 15.02.2021) updated by UPPTCL in 196th OCC
31	400/220kV, Kankroli	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• 220 kV D/C Kankroli(PG) - Nathdwara line	-	Standard bid document has been finalized on 13.08.2024 and bid is under preparation as updated by RVPNL in 222nd OCC.
32	400/220kV, Manesar	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• Network to be planned for 2 bays	-	Status:- A proposal is being prepared for the creation of another 220kV D/C line from the 400kV substation Panchgaon (PG) to the 220kV substation Panchgaon (HVPNL), along with the LILO of one circuit of the 220kV D/C Panchgaon (PG) – Mau line at the 220kV substation Panchgaon to utilize two bays at the 400kV substation Panchgaon. The load flow study for this has already been completed.
33	400/220kV, Saharanpur	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 6 Unutilized: 0 Under Implementation:2	• Network to be planned for 2 bays	Commissioned	Saharanpur(PG)-Devband D/c line (Energization date: 20.04.2023) updated by UPPTCL in 207th OCC
34	400/220kV, Wagoora	Commissioned: 10 Total: 10	Utilized: 6 Unutilized: 4	• Network to be planned for 4 bays	-	PDD, J&K to update the status.
35	400/220kV, Ludhiana	Commissioned: 9 Total: 9	Utilized: 8 Unutilized: 1	• Network to be planned for 1 bay	Commissioned	Direct circuit from 220 kV Lalton Kalan to Dhandari Kalan to be diverted to 400 kV PGCIL Ludhiana. Work completed , final agreement is expected to be signed by May'24. Updated in 218th OCC by PSTCL.
36	400/220kV, Chamba (Chamera Pool)	Commissioned: 3 Under tender:1 Total: 4	Utilized:3 Unutilized: 0 Under tender:1	• Stringing of 2nd ckt of Chamera Pool – Karian 220kV D/c line	Commissioned	Stringing of 2nd Circuit of Chamera Pool-Karian Transmission line has been completed & terminal bay at 400/220 kV chamera pooling substation (PGCIL) is commissioned on 20.01.2024. Updated in 217th OCC by HPPTCL.
37	400/220kV, Mainpuri	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 6 Unutilized: 0 Under Implementation:2	• Network to be planned for 2 bays	-	• 02 no. of bays under finalization stage updated by UPPTCL in 196th OCC. Mainpuri S/s planned. Land is not finalized, therefore timeline not available as intimated by UPPTCL in 201st OCC.
38	400/220kV, Patiala	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• 400 kV PGCIL Patiala - 220 kV Bhadson (D/C)	-	2 Nos. bays for 400 kV PGCIL Patiala - 220 kV Bhadson (D/C) line being planned. Construction of boundary wall has started at 220 kv ss bhadson.yard work could not be started as approval for dismantling existing 517 no tress is pending at district level committee which is competent for giving approval of dismantling of trees. Chairman of committee is DC patiala.. as updated by PSTCL in 233th OCC meeting

## Status of ADMS implementation in NR:

Sl. No.	State / UT	Status	Remarks
1	DELHI	Scheme Implemented but operated in manual mode.	In 236th OCC meeting, Delhi SLDC representative stated that as informed by BRPL and BYPL, SCADA upgradation work of would be completed by Dec'25. Further, SCADA upgradation work of TPDDL would be completed by Dec'26.
2	HARYANA	Scheme not implemented	<p>Haryana SLDC intimated that as per Joint Roadmap of implementation of ADMS in Haryana supplied to NRPC vide memo dated 17.10.2023 (Annexure-II), the implementation plan was proposed to be carried out in two parts, as mentioned below:</p> <p>PART-I: Control with Transmission Utility</p> <p>PART-II: Control with Distribution Utility</p> <p>It is pertinent to mention that as part of upcoming SCADA-EMS system i.e. upgradation of SCADA-EMS system, a feature in the name of LSS (Load Shedding Software)/ ADMS is part of the Technical Specification of project to be delivered. Therefore, the functionalities of ADMS application will be covered under 'Part-I: Control with Transmission Utility' will already be covered using the RTUs available at select substations along with the ADMS software being delivered by M/s GE under SCADA upgradation project.</p> <p>Hence, there is no need to acquire a separate ADMS application &amp; associated hardware for data centre for implementation of PART-I.</p> <p>Further for Part -II a committee has been constituted for further finalization of the ADMS module with control with Discoms is under discussions for preparation of DPR. In 239th OCC Meeting, Haryana SLDC informed that the matter of feeder identification has been taken up with the DISCOMs. Member Secretary, NRPC advised Haryana SLDC to first identify the feeders at the SLDC level, as decided in the 238th OCC Meeting, and thereafter obtain consent from DISCOMs in State OCC and submit the final list of feeders to NRPC.</p>
3	HP	Scheme not implemented	In 237th OCC meeting, HPS DLC representative informed that vide letter dated 25.10.2025 they have requested HPSEBL to expedite the feeder list. However, reply of HPSEBL is awaited. Further, they have also requested MD, HPSEBL for a suitable date for a meeting in this regard.
4	PUNJAB	Scheme not implemented	In 238th OCC meeting, Punjab SLDC representative informed that testing of SCADA upgradation under ULDC phase III is underway. All the material may be commissioned by March-26 and implementation of logic of ADMS may be executed by Sept-26.
5	RAJASTHAN	Under implementation	RVPN has pilot tested the logic of ADMS which is to be implemented for Rajasthan. In 232th OCC meeting, RVPN informed that 351 nos. of circuit breakers have been mapped to ADMS, all 351 circuit breakers tested upto yard individually. Total 650CBs are to be mapped in phased manner.
6	UP	Scheme implemented by NPCIL only	<p>In 236th OCC meeting, UP SLDC representative stated that 300 No. of 132 KV Substations have been integrated with SCADA. SCADA upgradation under ULDC phase III is likely to be completed in the next 3 to 4 months. List of 33kV feeders to be mapped under ADMS is required from the Discoms. In the meeting held in Aug'25, UPSLDC had requested Discoms to provide the feeders list. Reminders were also sent to Discoms. However, 33 kV feeder list is still pending from the Discoms.</p> <p>MS, NRPC asked UPSLDC to have meeting with Discoms in its control areas and finalize of feeder list before next OCC meeting.</p> <p>In the 239th OCC Meeting, UPSLDC representative informed that 46 feeders have been identified and that the same would be updated to the NRPC after receiving consent from the DISCOMs in the SPC meeting scheduled to be held on 21.01.2026.</p>

7	UTTARAKHAND	Scheme not implemented	<p>i. UPCL has prepared a system architecture in which all the non-monitored sub-stations have been selected and 11kV feeders have been considered for ADMS operation. For the scheme, discom has also done group-wise selection of feeders and quantum of MW relief to be given for automatic demand response at 11kV level has also been decided. UPCL has awarded the tender for implementation of the aforementioned scheme to M/s Metergy Pvt.Ltd.</p> <p>ii. As per the status report submitted by M/s Metergy Pvt.Ltd, the survey work of 30 nos. incomer sites have been completed and order has been placed by UPCL for hardware equipments.</p> <p>iii. Uttarakhand SLDC informed that feeder list at 11kV level has been finalized and logic of ADMS implementation is under finalization.</p> <p>iv. Uttarakhand has intimated that It is bring to your notice that installation MFT( Multi Function Transducers) at various interstate points at PTCUL Substations under ADRS Project of UPCL is in progress.</p> <p>v. First Phase- Data Acquisition of 32 interstate points completed.</p> <p>vi. Second Phase-95 distribution side Substation work is on progress.</p> <p>vii In 230th OCC meeting Uttarakhand SLDC representative informed that Harbour installation and communication establishment has been done on 35 11kV feeders out of total 195 11kV feeders. The work is expected to be completed by December, 2025.</p>
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## Status of availability of ERS towers in NR

Sl. No.	Transmission Utility	Voltage Level (220kV/400kV/765kV/ 500 kV HVDC etc.)	Length of the transmission lines owned by the Utility (Ckt. Kms.)	Number of ERS Sets (towers) available (Nos.)	ERS Set ( towers) required as per the Govt. norms.	Location	Remarks
1	PTCUL	400kV	418.394	NIL	1		Tender has been scraped due to single bidder.
		220kV	1045.135	NIL	1		
2	Powergrid NR-1	220 KV	1842.88	NIL	1		
		400 KV	11074.26	12 Towers	3	All 400kV ERS at Ballabgarh	make-Lindsey
		765 KV	4721.85	15 Towers	1	All 765kV ERS at Meerut	Make-SBB
		500 KV HVDC	653.88	NIL	1		
3	Powergrid NR-2	800 KV HVDC	416.58	NIL	1		
		66 KV	37.56	Nil	1		ERS tower available for 400KV rating can be used in place of lower as well as higher voltage Towers. In case used for 765KV Line, No of towers can be erected will reduce due to increase in Tower Hight.
		132 KV	262.7	Nil	1		
		220 KV	2152	Nil	1		
		400 KV	8097.3	02 Set (32 Towers)	2	Kishenpur & Jalandhar	
765 KV	337.5	Nil	1				
4	Powergrid NR-3	800KV HVDC	2205	NIL	1		400KV ERS will be also be used in other voltage level lines
		500KV HVDC	2566	NIL	1		
		765KV	4396	NIL	1		
		400KV	12254	26 Towers	3	Kanpur	
		220KV	1541	NIL	1		
		132KV	207	NIL	1		
5	PARBATI KOLDAM TRANSMISSION COMPANY LIMITED	400kV	457	NIL	1		Procurement under process.
6	PATRAN TRANSMISSION COMPANY LTD	400kV	0.4	NIL	1	It is kept in Bhopal and on need basis is moved across region	Not available, will tie up based on the requirements in future. However the parent company IndiGrid owns one set of ERS for all five regions.
7	NRSS-XXIX TRANSMISSION LTD	400kV	853	NIL	1		
8	GURGAON PALWAL TRANSMISSION LTD	400kV	272	NIL	1		
9	RAPP Transmission Company Limited.	400kV	402	NIL	1		
10	NRSS XXXVI Transmission Limited	400kV	301.924	NIL	1		Element I - Operational comprising of 3 kms. Element II - Work Under Progress comprising of 221.924 kms. Element II - Work Under Progress comprising of 77 kms.
11	HPPTCL	220 kV	659	NIL	1		
		400 kV	75.7	NIL	1		
12	RVPN	132 kV	18969.958	1	4	01 No. ERS available at 220 kV GSS Heerapura, Jaipur	1 ERS set is available and 3 ERS set have been procured for which schedule bidding is in March 2026.
		220 kV	16227.979		3		
		400 kV	6899.386		2		
		765 kV	425.498		1		
13	DTL	220kV	915.498	NIL	1	400kV Bamnauli Sub station	2 ERS tower available.
		400kV	249.19	02 Sets (32 towers)	1		
14	JKPTCL						JKPTCL, Jammu: being procured JKPTCL, Kashmir:10 tower procured (out of which 3 on loan to JKPTCL, Jammu)

Sl. No.	Transmission Utility	Voltage Level (220kV/400kV/765kV/ 500 kV HVDC etc.)	Length of the transmission lines owned by the Utility (Ckt. Kms.)	Number of ERS Sets (towers) available (Nos.)	ERS Set ( towers) required as per the Govt. norms.	Location	Remarks
15	HVPN						ERS towers (6 nos tension and 6 nos suspension type 400kv level) in Haryana have been procured and already dispatched to 220kv Substation karnal and DD store Hisar.
16	PSTCL	400 kV 220 kV	1666.43 7921.991	2	2		
17	UPPTCL 1- Meerut	132KV	27508.321	24 Nos(15 Running+9 Angle)		400 kV S/s Gr. Noida	ERS will be also be used in other voltage level lines.
		220KV	14973.453				
		400KV	6922.828				
	UPPTCL 2-Prayagraj	765KV	839.37	24 Towers		220 kv S/s phulpur	ERS will also be used in other voltage lines.
		400KV	1804.257				
		220KV	2578.932				
		132KV	4714.768				
18	POWERLINK						
19	POWERGRID HIMACHAL TRANSMISSION LTD						
20	Powergrid Ajmer Phagi Transmission Limited						
21	Powergrid Fatehgarh Transmission Limited						
22	POWERGRID KALA AMB TRANSMISSION LTD						
23	Powergrid Unchahar Transmission Ltd						
24	Powergrid Khetri Transmission Limited						
25	POWERGRID VARANASI TRANSMISSION SYSTEM LTD						
26	ADANI TRANSMISSION INDIA LIMITED		2090	1 Set (12 towers)	1 set (12 towers)	Sami (Gujarat)	Make-Lindsey ERS set available for 400KV & 500KV rating can be used for lower as well as higher voltage Towers. In case used for 765KV Line, No of towers can reduce due to increase in Tower Height & nos of conductors.
27	BIKANER KHETRI TRANSMISSION LIMITED		482				
28	FATEHGARH BHADLA TRANSMISSION LIMITED	500 kV HVDC 400 kV HVAC	291				
29	NRSS-XXXI(B) TRANSMISSION LTD	400 kV	577.74	Not Available	Not Available		Tied up with M/s INDIGRID for providing ERS on need basis.
30	ARAVALI POWER COMPANY PVT LTD	765 kv HVAC					

\*The transmission Utility with line length less than 500 ckt kms (of 400 KV lines) may be given option either to procure ERS or have agreement with other transmission utilities for providing ERS on mutually agreed terms, when need arises. (As per MoP directions)

## List of generators who have not furnished the testing schedule for FY 2026-2027

Operator	Generating Unit	Installed Capacity	Tests for which schedule is to be furnished
ADANI POWER LTD.	KAWAI TPS (ADANI POWER) Unit 1	660	No schedule given
ADANI POWER LTD.	KAWAI TPS (ADANI POWER) Unit 2	660	No schedule given
ADPCL	ALLAIN DUHANGAN HPS Unit 1	96	No schedule given
ADPCL	ALLAIN DUHANGAN HPS Unit 2	96	No schedule given
AHPCL	ALAKNANDA HPS Unit 1	82.5	No schedule given
AHPCL	ALAKNANDA HPS Unit 2	82.5	No schedule given
AHPCL	ALAKNANDA HPS Unit 3	82.5	No schedule given
AHPCL	ALAKNANDA HPS Unit 4	82.5	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit L-1	126	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit L-2	126	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit L-3	126	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit L-4	126	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit L-5	126	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit R-1	157	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit R-2	157	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit R-3	157	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit R-4	157	No schedule given
BBMB	BHAKRA LEFT & RIGHT HPS Unit R-5	157	No schedule given
BBMB	GANGUWAL HPS Unit 1	27.99	No schedule given
BBMB	GANGUWAL HPS Unit 2	24.2	No schedule given
BBMB	GANGUWAL HPS Unit 3	24.2	No schedule given
BBMB	KOTLA HPS Unit 1	28.94	No schedule given
BBMB	KOTLA HPS Unit 2	24.2	No schedule given
BBMB	KOTLA HPS Unit 3	24.2	No schedule given
BBMB	DEHAR HPS Unit 1	165	No schedule given
BBMB	DEHAR HPS Unit 2	165	No schedule given
BBMB	DEHAR HPS Unit 3	165	No schedule given
BBMB	DEHAR HPS Unit 4	165	No schedule given
BBMB	DEHAR HPS Unit 5	165	No schedule given
BBMB	DEHAR HPS Unit 6	165	No schedule given
BBMB	PONG HPS Unit 1	66	No schedule given
BBMB	PONG HPS Unit 2	66	No schedule given
BBMB	PONG HPS Unit 3	66	No schedule given
BBMB	PONG HPS Unit 4	66	No schedule given
BBMB	PONG HPS Unit 5	66	No schedule given
BBMB	PONG HPS Unit 6	66	No schedule given
CLP India	MAHATMA GANDHI TPS (CLP JHAJJAR) Unit 1	660	Periodic testing is scheduled tentatively in Oct'28
CLP India	MAHATMA GANDHI TPS (CLP JHAJJAR) Unit 2	660	Periodic testing is scheduled tentatively in Oct'28
GAMA INFRAPROP PVT.	GAMA CAPP Unit GT-1	75	No schedule given
GAMA INFRAPROP PVT.	GAMA CAPP Unit GT-2	75	No schedule given
GAMA INFRAPROP PVT.	GAMA CAPP Unit ST	75	No schedule given
Greenko	BUDHIL HPS Unit 1	35	No schedule given
Greenko	BUDHIL HPS Unit 2	35	No schedule given
HP Sorang	HP SORANG HPS Unit 1	100	No schedule given
HPGCL	PANIPAT TPS Unit 6	210	No schedule given
HPGCL	PANIPAT TPS Unit 7	250	No schedule given
HPGCL	PANIPAT TPS Unit 8	250	No schedule given
HPGCL	RAJIV GANDHI TPS HISAR Unit 1	600	No schedule given
HPGCL	RAJIV GANDHI TPS HISAR Unit 2	600	No schedule given
HPGCL	DCR TPS YAMUNA NAGAR Unit 1	300	No schedule given
HPGCL	DCR TPS YAMUNA NAGAR Unit 2	300	No schedule given
HPPCL	SAINJ HPS Unit 1	50	No schedule given
HPPCL	SAINJ HPS Unit 2	50	No schedule given
JAYPEE	CHURK TPS (JAYPEE) Unit NA	90	No schedule given
JKSPDC	BAGLIHAR HPS Unit 1	150	No schedule given

JKSPDC	BAGLIHAR HPS Unit 2	150	No schedule given
JKSPDC	BAGLIHAR HPS Unit 3	150	No schedule given
JKSPDC	BAGLIHAR II HPS Unit 1	150	No schedule given
JKSPDC	BAGLIHAR II HPS Unit 2	150	No schedule given
JKSPDC	BAGLIHAR II HPS Unit 3	150	No schedule given
JKSPDC	LOWER JHELUM HPS Unit 1	35	No schedule given
JKSPDC	LOWER JHELUM HPS Unit 2	35	No schedule given
JKSPDC	LOWER JHELUM HPS Unit 3	35	No schedule given
JKSPDC	UPPER SINDH-II HPS Unit 1	35	No schedule given
JKSPDC	UPPER SINDH-II HPS Unit 2	35	No schedule given
JKSPDC	UPPER SINDH-II HPS Unit 3	35	No schedule given
JSW ENERGY LTD.	JSW ENERGY (BARMER) TPP Unit 1	135	No schedule given
JSW ENERGY LTD.	JSW ENERGY (BARMER) TPP Unit 2	135	No schedule given
JSW ENERGY LTD.	JSW ENERGY (BARMER) TPP Unit 3	135	No schedule given
JSW ENERGY LTD.	JSW ENERGY (BARMER) TPP Unit 4	135	No schedule given
JSW ENERGY LTD.	JSW ENERGY (BARMER) TPP Unit 5	135	No schedule given
JSW ENERGY LTD.	JSW ENERGY (BARMER) TPP Unit 6	135	No schedule given
JSW ENERGY LTD.	JSW ENERGY (BARMER) TPP Unit 7	135	No schedule given
JSW ENERGY LTD.	JSW ENERGY (BARMER) TPP Unit 8	135	No schedule given
MEIL	ANPARA C TPS (LANCO) Unit 1	600	No schedule given
MEIL	ANPARA C TPS (LANCO) Unit 2	600	No schedule given
NLC+UPRVUNL	GHATAMPUR TPP Unit 1	660	No schedule given
NLC+UPRVUNL	GHATAMPUR TPP Unit 2	660	No schedule given
NLC+UPRVUNL	GHATAMPUR TPP Unit 3	660	No schedule given
NTPC	MEJA STPP Unit 1	660	No schedule given
NTPC	MEJA STPP Unit 2	660	No schedule given
NTPC	TANDA TPS Unit 1	110	No schedule given
NTPC	TANDA TPS Unit 2	110	No schedule given
NTPC	TANDA TPS Unit 3	110	No schedule given
NTPC	TANDA TPS Unit 4	110	No schedule given
PPCL	PPS-III BAWANA Unit GT-1	216	No schedule given
PPCL	PPS-III BAWANA Unit GT-2	216	No schedule given
PPCL	PPS-III BAWANA Unit GT-3	216	No schedule given
PPCL	PPS-III BAWANA Unit GT-4	216	No schedule given
PPCL	PPS-III BAWANA Unit ST-1	253.6	No schedule given
PPCL	PPS-III BAWANA Unit ST-2	253.6	No schedule given
PPCL	PPS-I PPCL Unit GT-1	104	No schedule given
PPCL	PPS-I PPCL Unit GT-2	104	No schedule given
PPCL	PPS-I PPCL Unit ST	122	No schedule given
PSPCL	ANANDPUR SAHIB-I HPS Unit 1	33.5	No schedule given
PSPCL	ANANDPUR SAHIB-II HPS Unit 2	33.5	No schedule given
PSPCL	GHTPS (LEHRA MOHBBAT) Unit 1	210	No schedule given
PSPCL	GHTPS (LEHRA MOHBBAT) Unit 2	210	No schedule given
PSPCL	GHTPS (LEHRA MOHBBAT) Unit 3	250	No schedule given
PSPCL	GHTPS (LEHRA MOHBBAT) Unit 4	250	No schedule given
PSPCL	RANJIT SAGAR DAM HPS Unit 1	150	No schedule given
PSPCL	RANJIT SAGAR DAM HPS Unit 2	150	No schedule given
PSPCL	RANJIT SAGAR DAM HPS Unit 3	150	No schedule given
PSPCL	RANJIT SAGAR DAM HPS Unit 4	150	No schedule given
PSPCL	GGSTP ROPAR Unit 3	210	No schedule given
PSPCL	GGSTP ROPAR Unit 4	210	No schedule given
PSPCL	GGSTP ROPAR Unit 5	210	No schedule given
PSPCL	GGSTP ROPAR Unit 6	210	No schedule given
RRVUNL	CTPP CHHABRA Unit 1	250	No schedule given
RRVUNL	CTPP CHHABRA Unit 2	250	No schedule given
RRVUNL	CTPP CHHABRA Unit 3	250	No schedule given
RRVUNL	CTPP CHHABRA Unit 4	250	No schedule given
RRVUNL	CSCTPP CHHABRA Unit 5	660	No schedule given
RRVUNL	CSCTPP CHHABRA Unit 6	660	No schedule given
RRVUNL	DHOLPUR CCPP (DCCPP) Unit GT-1	110	No schedule given
RRVUNL	DHOLPUR CCPP (DCCPP) Unit GT-2	110	No schedule given
RRVUNL	DHOLPUR CCPP (DCCPP) Unit ST	110	No schedule given
RRVUNL	JAWAHAR SAGAR HPS Unit 1	33	No schedule given
RRVUNL	JAWAHAR SAGAR HPS Unit 2	33	No schedule given
RRVUNL	JAWAHAR SAGAR HPS Unit 3	33	No schedule given
RRVUNL	KALISINDH TPS (KATPP) Unit 1	600	No schedule given

RRVUNL	KALISINDH TPS (KATPP) Unit 2	600	No schedule given
RRVUNL	KOTA TPS (KSTPS) Unit 1	110	No schedule given
RRVUNL	KOTA TPS (KSTPS) Unit 2	110	No schedule given
RRVUNL	KOTA TPS (KSTPS) Unit 3	210	No schedule given
RRVUNL	KOTA TPS (KSTPS) Unit 4	210	No schedule given
RRVUNL	KOTA TPS (KSTPS) Unit 5	210	No schedule given
RRVUNL	KOTA TPS (KSTPS) Unit 6	195	No schedule given
RRVUNL	KOTA TPS (KSTPS) Unit 7	195	No schedule given
RRVUNL	MAHI-I HPS BANSWARA Unit 1	25	No schedule given
RRVUNL	MAHI-I HPS BANSWARA Unit 2	25	No schedule given
RRVUNL	MAHI-II HPS BANSWARA Unit 1	45	No schedule given
RRVUNL	MAHI-II HPS BANSWARA Unit 2	45	No schedule given
RRVUNL	R P SAGAR HPS Unit 1	43	No schedule given
RRVUNL	R P SAGAR HPS Unit 2	43	No schedule given
RRVUNL	R P SAGAR HPS Unit 3	43	No schedule given
RRVUNL	R P SAGAR HPS Unit 4	43	No schedule given
RRVUNL	RAMGARH CCPP Unit GT-1	35.5	No schedule given
RRVUNL	RAMGARH CCPP Unit GT-2	37.5	No schedule given
RRVUNL	RAMGARH CCPP Unit ST-1	37.5	No schedule given
RRVUNL	RAMGARH CCPP Unit GT-3	110	No schedule given
RRVUNL	RAMGARH CCPP Unit ST-2	50	No schedule given
RRVUNL	SSTPS SURATGARH Unit 1	250	No schedule given
RRVUNL	SSTPS SURATGARH Unit 2	250	No schedule given
RRVUNL	SSTPS SURATGARH Unit 3	250	No schedule given
RRVUNL	SSTPS SURATGARH Unit 4	250	No schedule given
RRVUNL	SSTPS SURATGARH Unit 5	250	No schedule given
RRVUNL	SSTPS SURATGARH Unit 6	250	No schedule given
RRVUNL	SSCTPP SURATGARH Unit 7	660	No schedule given
RRVUNL	SSCTPP SURATGARH Unit 8	660	No schedule given
SRAVANTHI ENERGY	KASHIPUR CCPP (SRAVANTHI ENERGY) Unit GT-1	75	No schedule given
SRAVANTHI ENERGY	KASHIPUR CCPP (SRAVANTHI ENERGY) Unit GT-2	75	No schedule given
SRAVANTHI ENERGY	KASHIPUR CCPP (SRAVANTHI ENERGY) Unit ST	75	No schedule given
THDC	KOTESHWAR HPS Unit 1	100	No schedule given
THDC	KOTESHWAR HPS Unit 2	100	No schedule given
THDC	KOTESHWAR HPS Unit 3	100	No schedule given
THDC	KOTESHWAR HPS Unit 4	100	No schedule given
THDC	KHURJA TPP Unit 1	660	No schedule given
THDC	KHURJA TPP Unit 2	660	No schedule given
UJVNL	CHIBRO (YAMUNA) HPS Unit 1	60	No schedule given
UJVNL	CHIBRO (YAMUNA) HPS Unit 2	60	No schedule given
UJVNL	CHIBRO (YAMUNA) HPS Unit 3	60	No schedule given
UJVNL	CHIBRO (YAMUNA) HPS Unit 4	60	No schedule given
UJVNL	CHILLA POWER HOUSE Unit 1	36	No schedule given
UJVNL	CHILLA POWER HOUSE Unit 2	36	No schedule given
UJVNL	CHILLA POWER HOUSE Unit 3	36	No schedule given
UJVNL	CHILLA POWER HOUSE Unit 4	36	No schedule given
UJVNL	KHODRI HPS Unit 1	30	No schedule given
UJVNL	KHODRI HPS Unit 2	30	No schedule given
UJVNL	KHODRI HPS Unit 3	30	No schedule given
UJVNL	KHODRI HPS Unit 4	30	No schedule given
UJVNL	MANERI BHALI-I HPS TILOTH Unit 1	30	No schedule given
UJVNL	MANERI BHALI-I HPS TILOTH Unit 2	30	No schedule given
UJVNL	MANERI BHALI-I HPS TILOTH Unit 3	30	No schedule given
UJVNL	MANERI BHALI-II HPS DHARASU Unit 1	76	No schedule given
UJVNL	MANERI BHALI-II HPS DHARASU Unit 2	76	No schedule given
UJVNL	MANERI BHALI-II HPS DHARASU Unit 3	76	No schedule given
UJVNL	MANERI BHALI-II HPS DHARASU Unit 4	76	No schedule given
UJVNL	RAMGANGA POWER HOUSE Unit 1	66	No schedule given
UJVNL	RAMGANGA POWER HOUSE Unit 2	66	No schedule given
UJVNL	RAMGANGA POWER HOUSE Unit 3	66	No schedule given
UJVNL	VYASI HEP Unit 1	60	No schedule given
UJVNL	VYASI HEP Unit 2	60	No schedule given
UPJVNL	OBRA HPS Unit 1	33	No schedule given
UPJVNL	OBRA HPS Unit 2	33	No schedule given
UPJVNL	OBRA HPS Unit 3	33	No schedule given
UPJVNL	RIHAND HPS Unit 1	50	No schedule given

UPJVNL	RIHAND HPS Unit 2	50	No schedule given
UPJVNL	RIHAND HPS Unit 3	50	No schedule given
UPJVNL	RIHAND HPS Unit 4	50	No schedule given
UPJVNL	RIHAND HPS Unit 5	50	No schedule given
UPJVNL	RIHAND HPS Unit 6	50	No schedule given
UPRVUNL	ANPARA TPS Unit 6	500	No schedule given
UPRVUNL	ANPARA TPS Unit 7	500	No schedule given
UPRVUNL	HARDUAGANJ TPS Unit 7	110	No schedule given
UPRVUNL	HARDUAGANJ TPS Unit 8	250	No schedule given
UPRVUNL	HARDUAGANJ TPS Unit 9	250	No schedule given
UPRVUNL	OBRA TPS Unit 9	200	No schedule given
UPRVUNL	OBRA TPS Unit 10	200	No schedule given
UPRVUNL	OBRA TPS Unit 11	200	No schedule given
UPRVUNL	OBRA TPS Unit 12	200	No schedule given
UPRVUNL	OBRA TPS Unit 13	200	No schedule given
UPRVUNL	OBRA-C STPP Unit 1	660	No schedule given
UPRVUNL	OBRA-C STPP Unit 2	660	No schedule given
UPRVUNL	PARICHHA TPS Unit 3	210	No schedule given
UPRVUNL	PARICHHA TPS Unit 4	210	No schedule given
UPRVUNL	PARICHHA TPS Unit 5	250	No schedule given
UPRVUNL	PARICHHA TPS Unit 6	250	No schedule given
UPRVUNL	HARDUAGANJ EXT-II TPS Unit 10	660	No schedule given
UPRVUNL	PANKI TPS EXTENSION Unit 1	660	No schedule given



# प्रचालन समन्वय उपसमिति की बैठक दिसम्बर - 2025

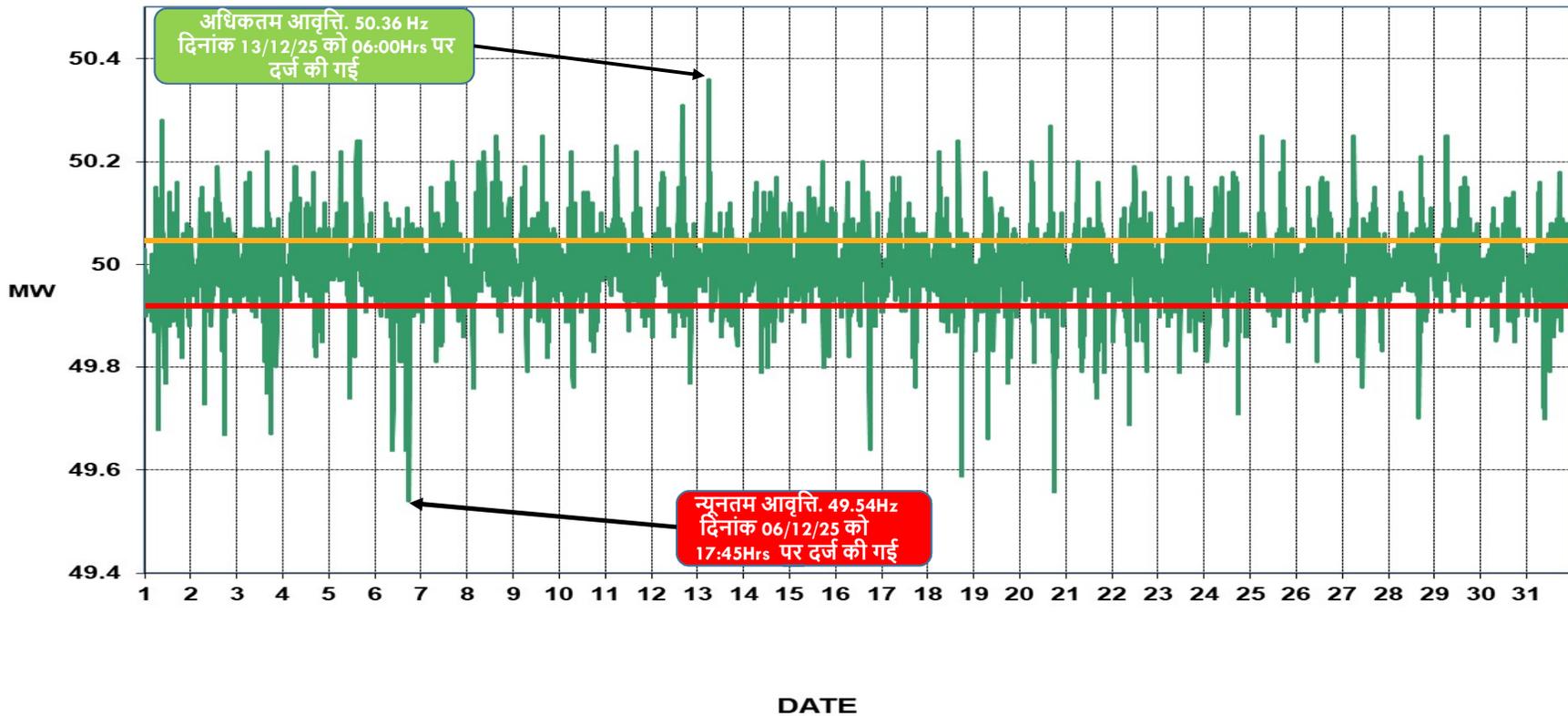
NRLDC (Northern Regional Load Dispatch Centre),  
New Delhi

# दिसम्बर-2025 के दौरान आवृत्ति की स्थिति (As per 5 Minute SCADA data)



क्षेत्रीय OD/UD : अधिकतम आवृत्ति पर **-980 MW(UD)** न्यूनतम आवृत्ति पर : **+48 MW(OD)**

FREQ



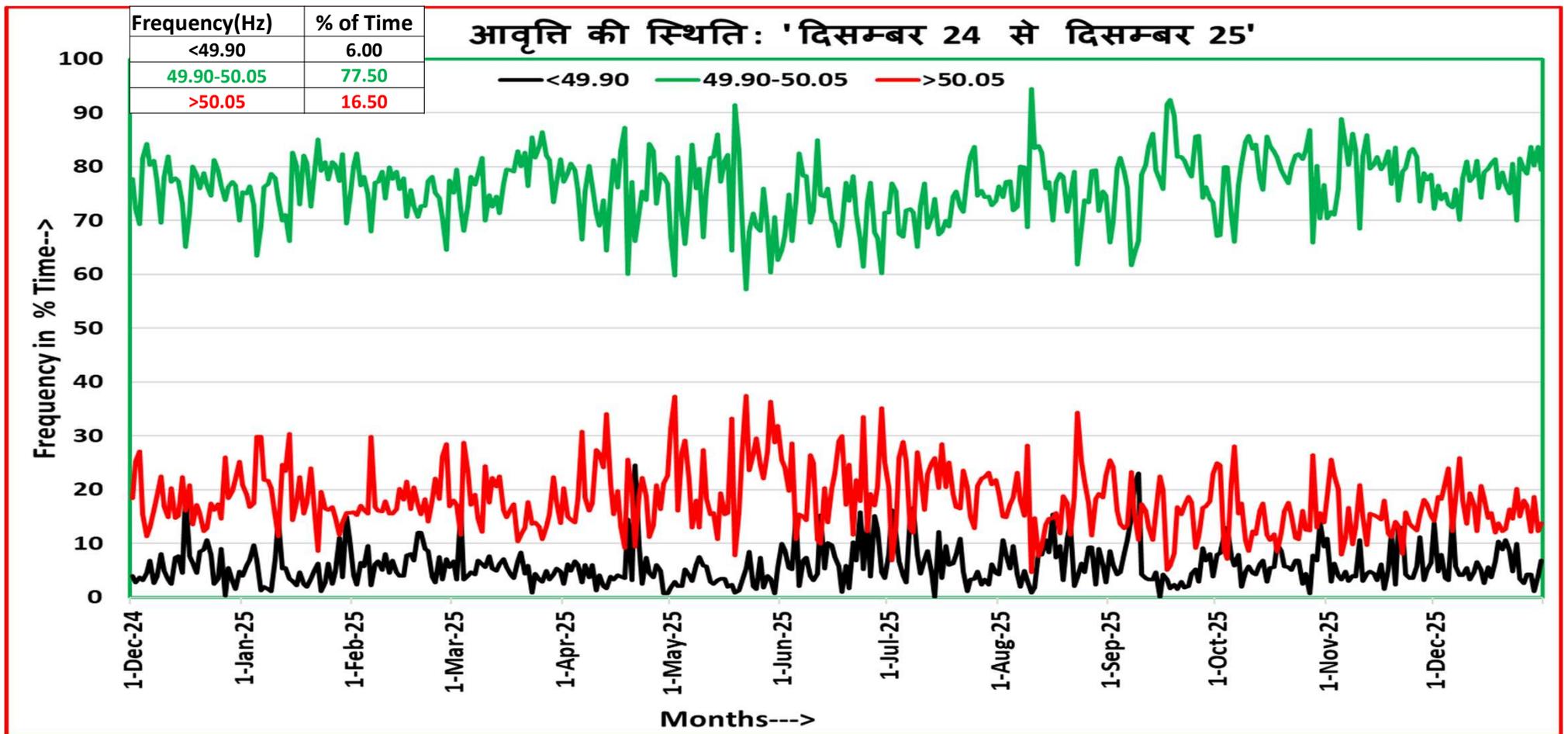
OD(+)/UD(-) at  
Max Freq

UP	+355
Pun	-410
JK	-165
Har	-465
Del	-134
Raj	-07
Chd	-06
Utt	-64
HP	-85

OD(+)/UD(-) at  
Min Freq

UP	-175
Utt	-105
JK	-75
Pun	-74
Del	-56
Har	-40
Raj	+304
HP	+05
Chd	+02

# आवृत्ति की स्थिति: दिसम्बर-2024 से 2025



# पिछले एक साल मे आवृत्ति की स्थिति

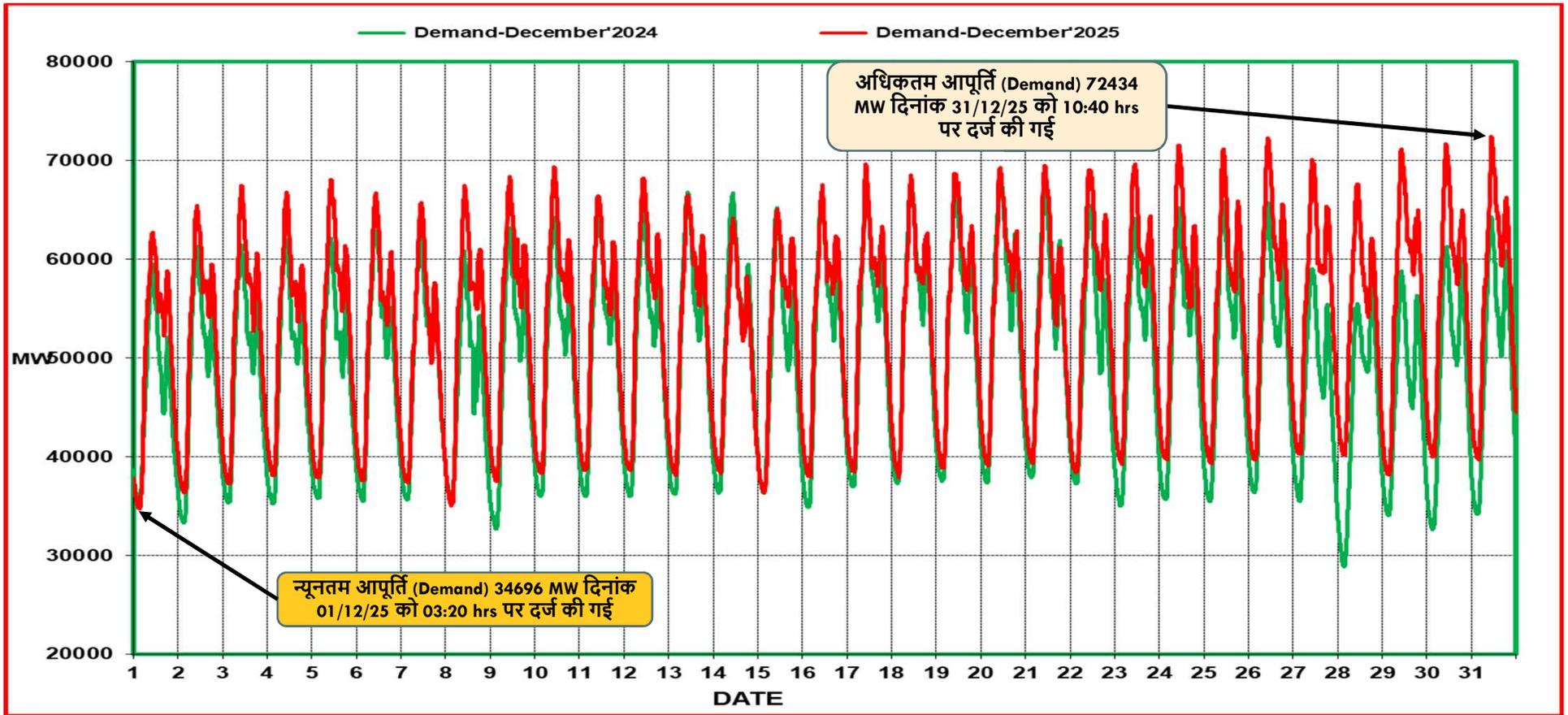
आवृत्ति बैंड	दिसंबर 2024	जनवरी 2025	फरवरी 2025	मार्च 2025	अप्रैल 2025	मई 2025	जून 2025	जुलाई 2025	अगस्त 2025	सितम्बर 2025	अक्टूबर 2025	नवम्बर 2025	दिसंबर 2025
< 49.7 Hz(%)	0.29	0.18	0.12	0.05	0.27	0.07	0.15	0.32	0.20	0.42	0.16	0.19	0.26
<49.8 Hz(%)	0.97	0.92	0.73	0.61	0.96	0.29	0.86	1.39	0.80	0.93	0.75	0.75	0.97
<49.9 Hz(%)	5.58	5.23	6.24	5.32	5.16	3.60	7.56	6.65	6.63	6.02	6.60	5.66	6.00
49.90-50.05 Hz(%)	76.45	76.05	75.35	77.89	75.64	73.30	71.85	72.89	76.22	78.33	78.59	79.39	77.50
50.05-50.10 Hz(%)	14.59	15.09	14.23	13.12	14.80	15.35	14.11	16.38	13.19	12.76	11.36	11.46	12.78
>50.10 Hz(%)	3.38	3.63	4.18	3.67	4.39	7.76	6.48	4.08	3.96	2.89	3.46	3.49	3.73
>50.20 Hz(%)	0.37	0.33	0.55	0.63	1.09	2.87	1.73	0.64	0.83	0.28	0.62	0.60	0.48
औसत आवृत्ति	49.998	49.998	49.999	50.001	50.004	50.015	50.002	50.003	49.999	49.996	49.993	49.994	49.995

## दिसम्बर -2025 के दौरान अधिकतम मांग (Demand Met), अधिकतम ऊर्जा खपत (Energy consumption) और अब तक का कीर्तिमान (राज्यों द्वारा जमा आंकड़ों के अनुसार)

राज्य	अधिकतम मांग (MW) (in Dec'25)	दिनांक / समय	रिकॉर्ड अधिकतम मांग (in MW) (upto Nov'25)	दिनांक / समय	अधिकतम ऊर्जा खपत (MU) (in Dec'25)	दिनांक	रिकॉर्ड अधिकतम ऊर्जा खपत (MU) (Upto Nov'25)	दिनांक
पंजाब	10172	06-12-2025 10:15	16754	28.06.25 at 15:00	176.84	05-12-2025	366.8	21.07.2024
हरियाणा	9512	17-12-2025 09:45	14662	31.07.24 at 14:30	172.89	17-12-2025	293.4	30.07.2024
राजस्थान	19100	29-12-2025 09:45	19165	12.02.25 at 11:00	344.86	27-12-2025	388.01	11.06.2025
दिल्ली	5465	31-12-2025 11:00	8656	19.06.24 at 15:06	91.76	31-12-2025	177.7	18.06.2024
उत्तर प्रदेश	23070	31-12-2025 19:18	31486	11.06.25 at 00:45	402.24	31-12-2025	658.7	17.06.2024
उत्तराखंड	2631	31-12-2025 09:00	2910	11.06.25 at 22:00	48.61	31-12-2025	62.1	14.06.2024
हिमाचल प्रदेश	2234	05-12-2025 07:45	2273	17.01.25 at 09:00	40.43	26-12-2025	42.55	11.06.2025
जम्मू और कश्मीर (UT) तथा लद्दाख (UT)	3301	31-12-2025 12:00	3200	07.01.25 at 10:00	66.74	19-12-2025	70.3	04.02.2025
चंडीगढ़	287	31-12-2025 09:15	482	18.06.24 at 15:28	4.84	31-12-2025	9.28	12.06.2025
उत्तरी क्षेत्र #	71633	26-12-2025 10:00	91234	19.06.24 at 14:37	1326.19	26-12-2025	2022.9	12.06.2025

# उत्तरी क्षेत्र अधिकतम मांग (Demand Met) as per 1 min SCADA Data

# क्षेत्रीय विद्युत आपूर्ति (Demand) दिसम्बर 2024 बनाम दिसम्बर 2025 (As per 5 Minute SCADA data)



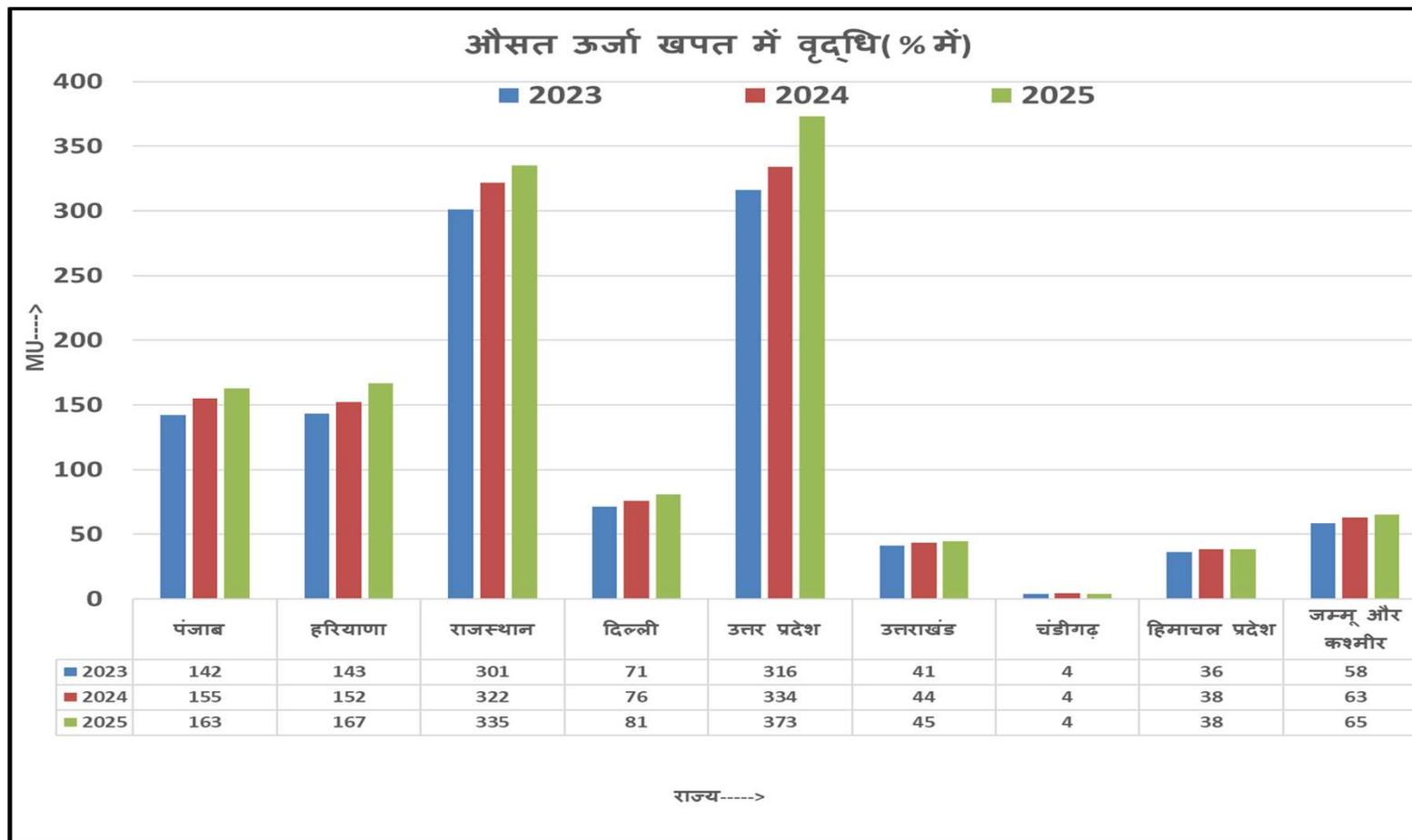
दिसम्बर -2024 की तुलना में दिसम्बर -2025 की औसत विद्युत आपूर्ति में 3906 MW वृद्धि हुई

## उत्तरी क्षेत्र की औसत ऊर्जा खपत में वृद्धि( % में) दिसम्बर -2025/दिसम्बर-2024 /दिसम्बर-2023

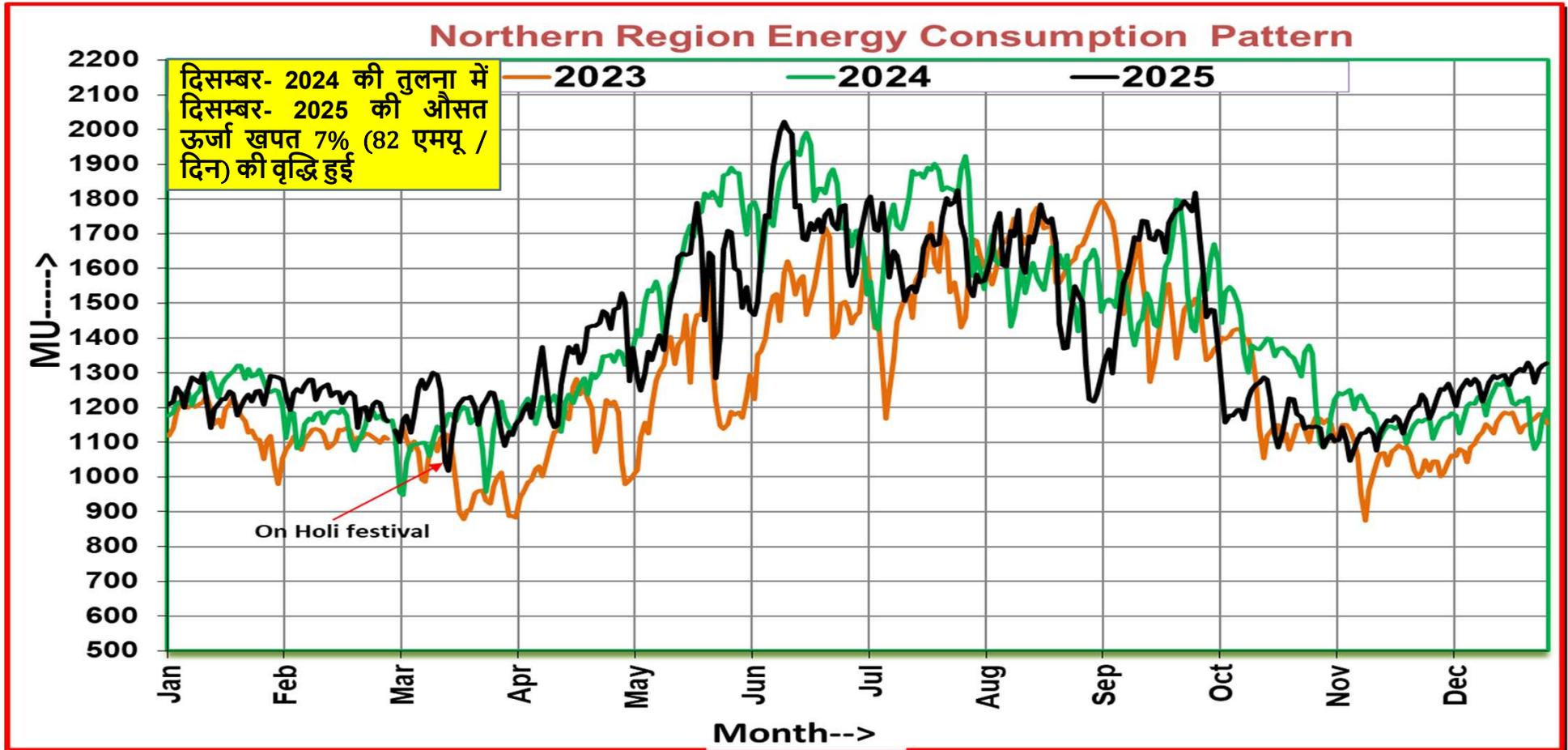


राज्य	दिसम्बर-2023	दिसम्बर-2024	दिसम्बर-2025	% वृद्धि (दिसम्बर-2024 vs दिसम्बर-2023)	% वृद्धि (दिसम्बर-2025 vs दिसम्बर-2024)
पंजाब	142	155	163	9.3%	4.8%
हरियाणा	143	152	167	6.1%	9.4%
राजस्थान	301	322	335	6.8%	4.1%
दिल्ली	71	76	81	6.6%	6.3%
उत्तर प्रदेश	316	334	373	5.6%	11.6%
उत्तराखंड	41	44	45	6.0%	2.2%
चंडीगढ़	4	4	4	9.3%	-1.5%
हिमाचल प्रदेश	36	38	38	5.4%	-0.3%
जम्मू और कश्मीर (UT) तथा लद्दाख (UT)	58	63	65	8.1%	3.4%
<b>उत्तरी क्षेत्र</b>	<b>1117</b>	<b>1192</b>	<b>1274</b>	<b>6.7%</b>	<b>6.8%</b>

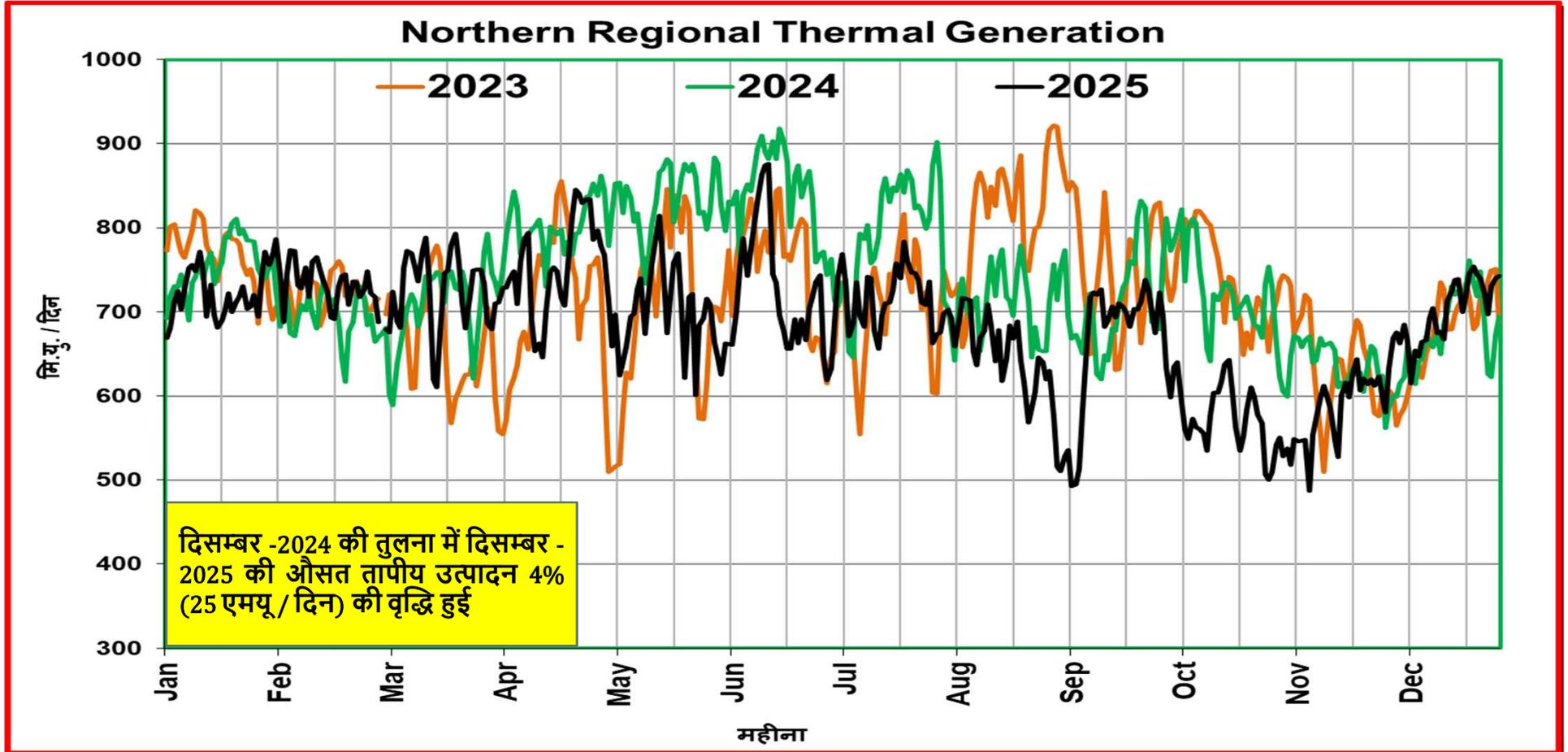
# उत्तरी क्षेत्र की औसत ऊर्जा खपत में वृद्धि( % में) दिसम्बर-2025/ दिसम्बर-2024 / दिसम्बर-2023



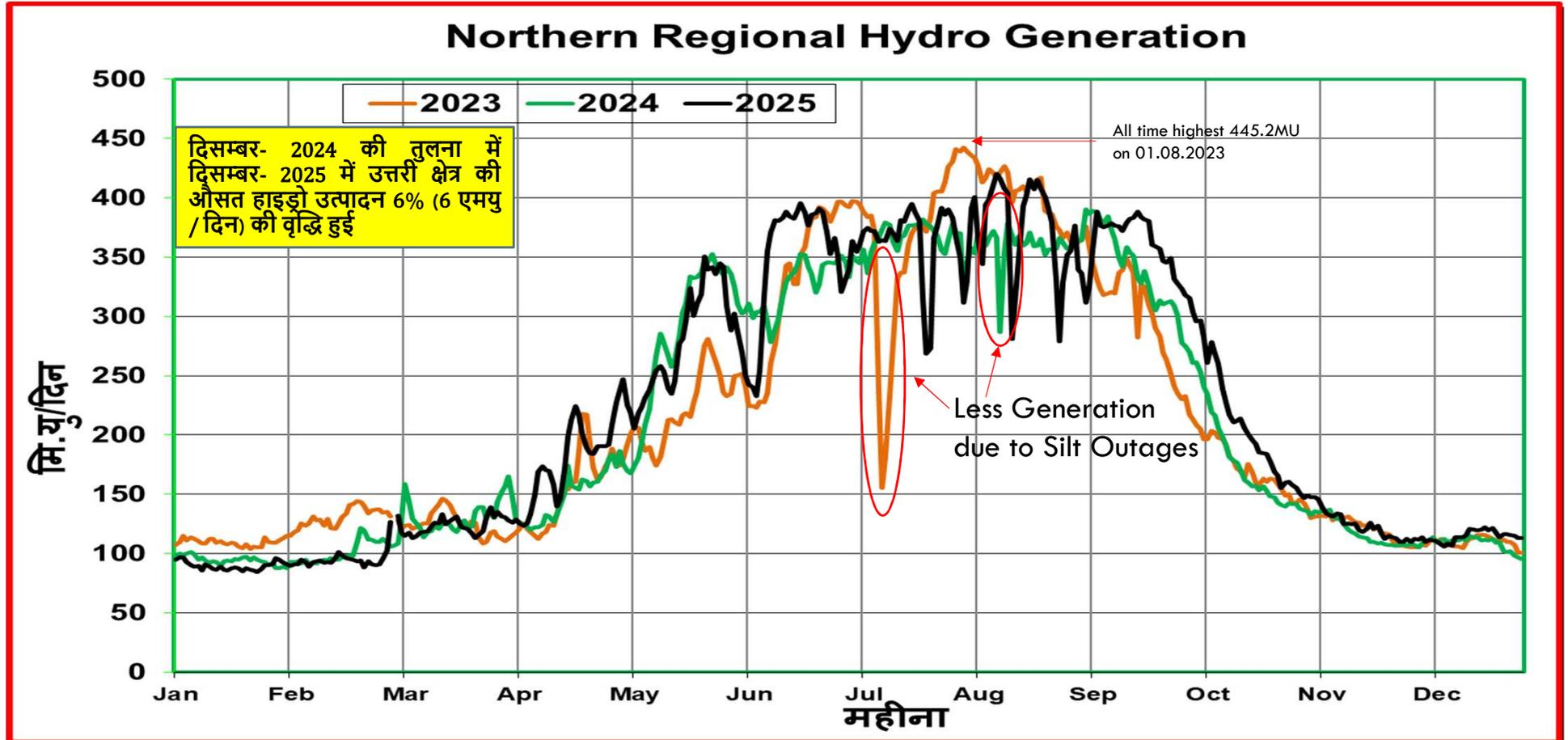
## उत्तरी क्षेत्र की ऊर्जा खपत(MUs)



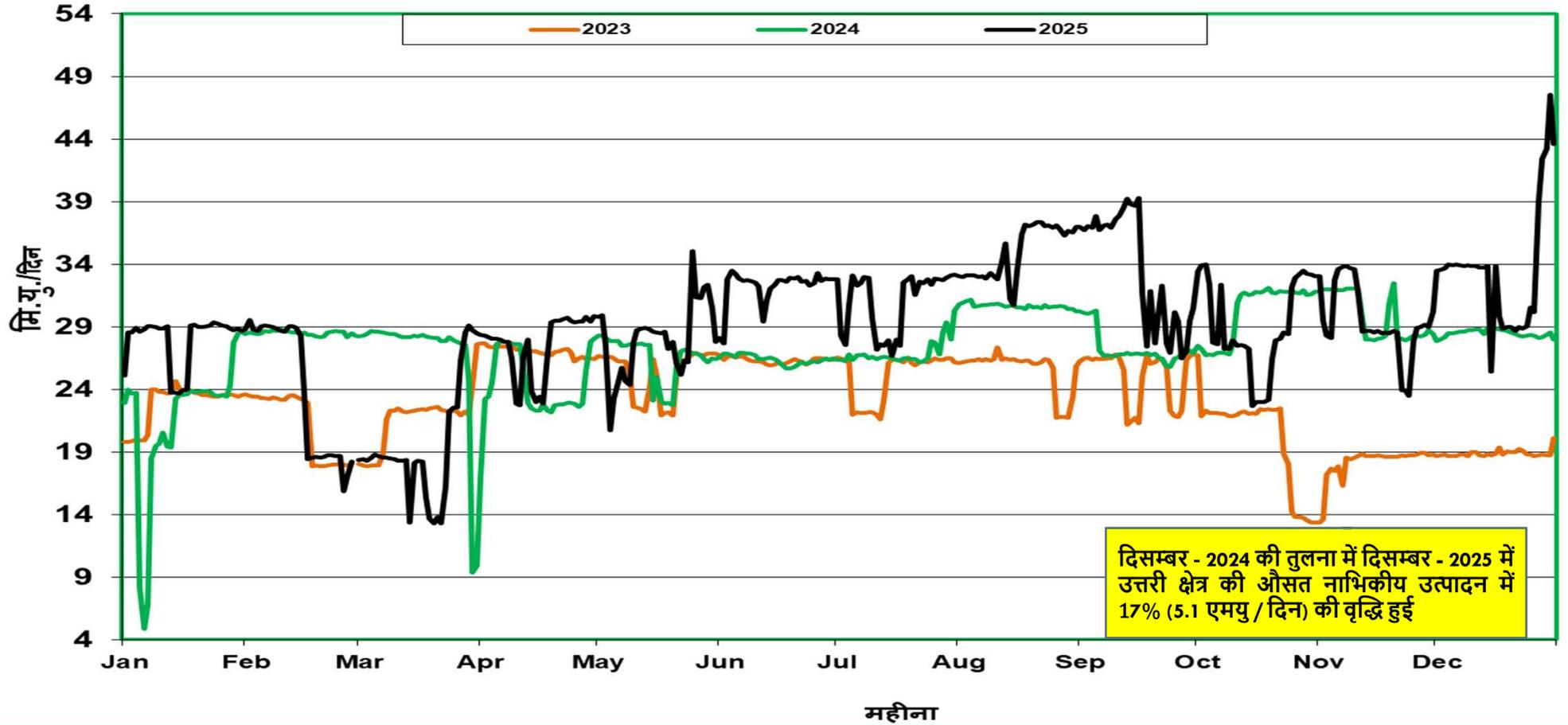
## उत्तरी क्षेत्र की तापीय (Thermal) उत्पादन की स्थिति (MUs/Day)



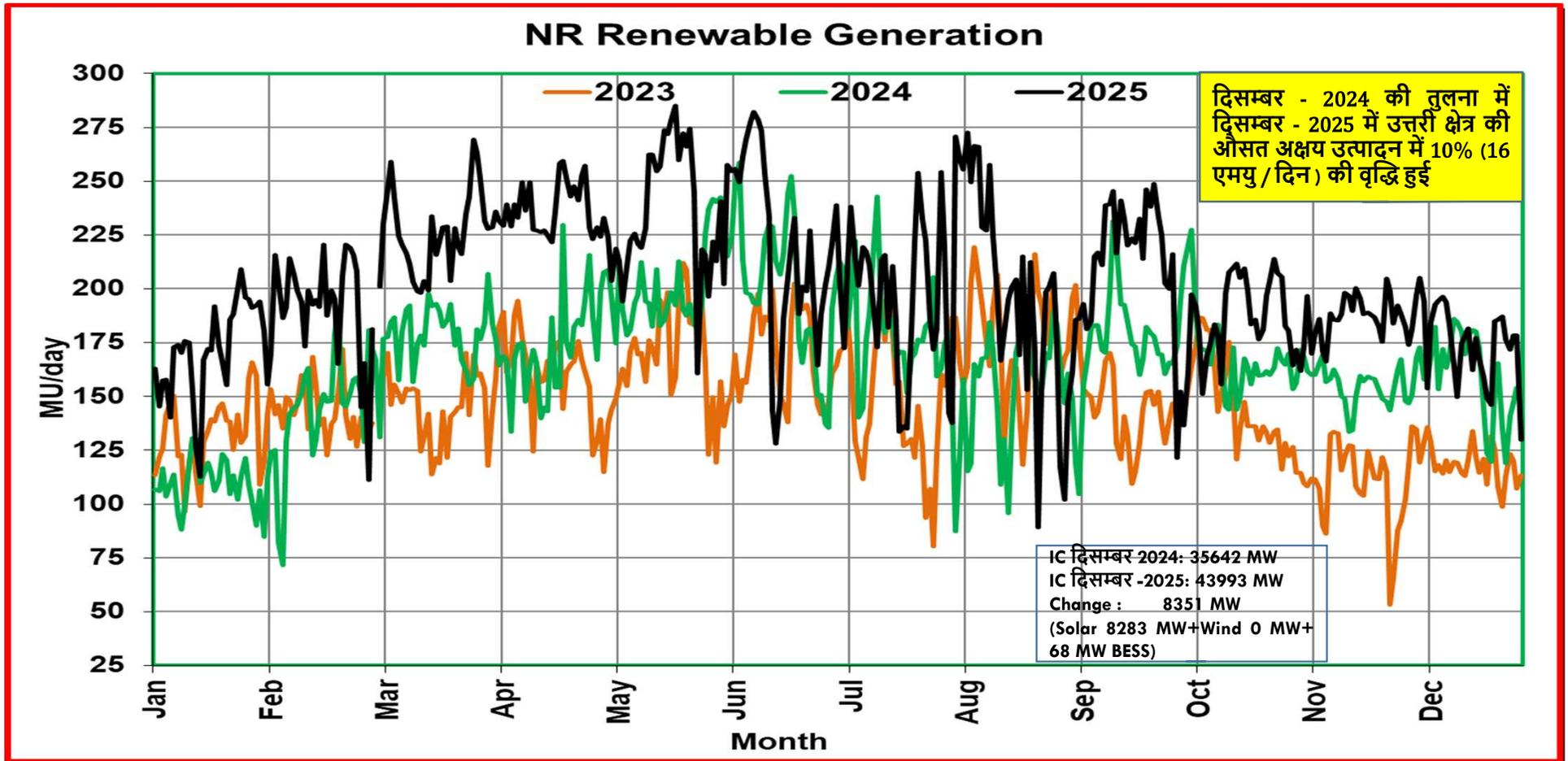
## उत्तरी क्षेत्र की जलीय (हाइड्रो) उत्पादन की स्थिति (MUs/Day)



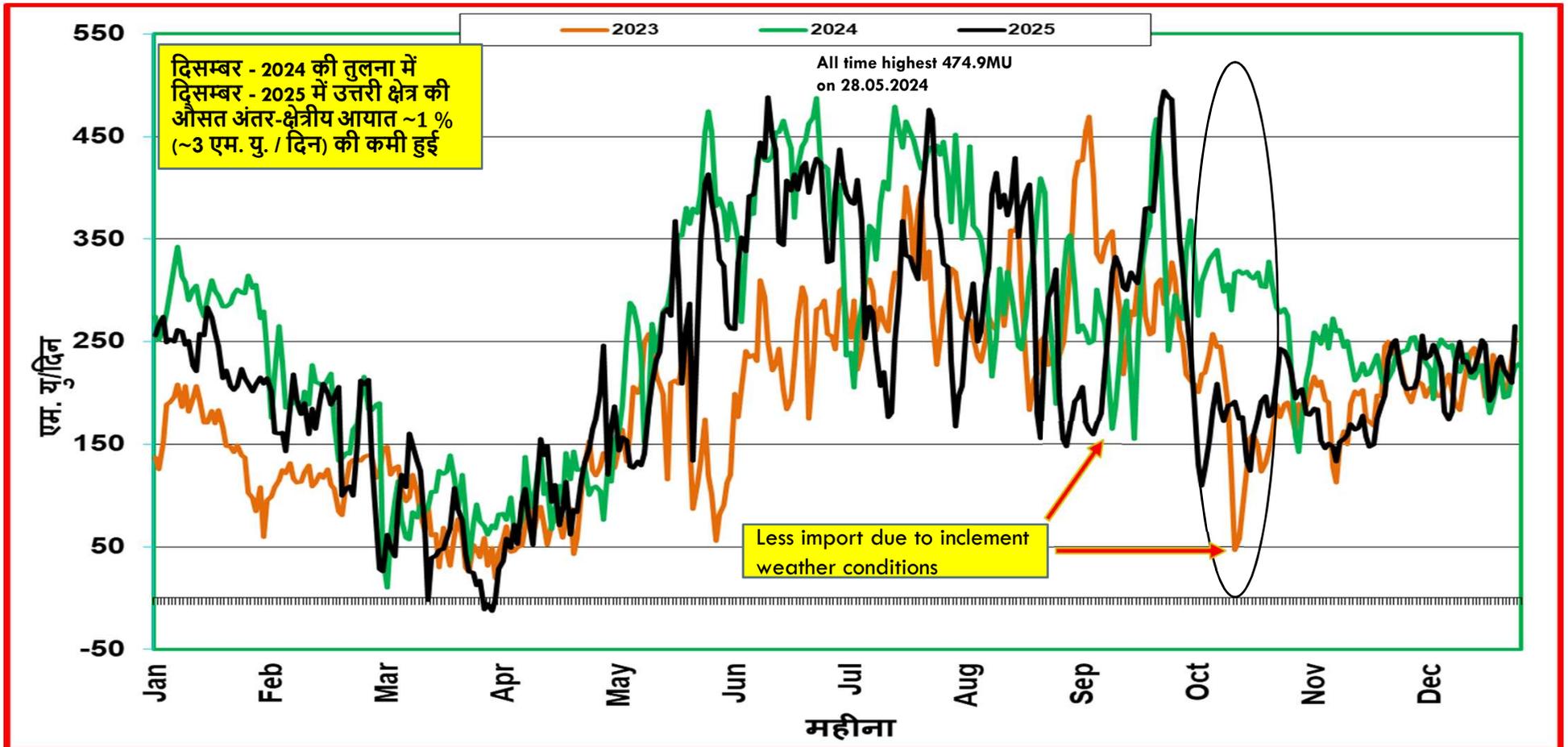
## उत्तरी क्षेत्र की नाभिकीय उत्पादन की स्थिति (MUs/Day)



## उत्तरी क्षेत्र की अक्षय (Renewable) उत्पादन की स्थिति (MUs/Day)



## अंतर-क्षेत्रीय आयात(MUs/Day) की स्थिति



वास्तविक सारांश -  
दिसम्बर -2024 बनाम दिसम्बर -2025

	दिसम्बर-2024 (मि.यु. /दिन)	दिसम्बर-2025 (मि.यु. /दिन)	दिसम्बर माह में वृद्धि (मि.यु./दिन)
तापीय (Thermal) उत्पादन	672	697	25
जलीय (Hydro) उत्पादन	108	114	6
नाभिकीय (Nuclear) उत्पादन	28	32	3
अंतर-क्षेत्रीय (Inter-Regional) कुल आयात	225	222	-3
अक्षय (Renewable) उत्पादन	160	176	16

## नवीकरणीय ऊर्जा की क्षमता (VRE PENETRATION)

	अधिकतम दैनिक (MU) क्षमता			
	दिसम्बर '2025		दिसम्बर '2025 तक का रिकॉर्ड	
	अधिकतम % क्षमता	दिनांक	अधिकतम % क्षमता	दिनांक
पंजाब	4.03	24-12-2025	12.28	01-04-2020
राजस्थान	16.25	04-12-2025	36.47	22-10-2021
उत्तर प्रदेश	3.99	04-12-2025	6.03	05-03-2025
उत्तर क्षेत्रीय	16.40	04-12-2025	23.00	15-03-2025

**OUTAGE SUMMARY FOR DEC-2025**

CONSTITUENTS	PLANNED (A)	FORCED OUTAGES (B=C+D)	EMERGENCY SHUTDOWNS (C)	TRIPPING (D)	PLANNED SHUTDOWNS (A/(A+C)) %	EMERGENCY SHUTDOWNS (C/(A+C)) %	ESD SHUTDOWNS (C/B) %	TRIPPING (D/B) %	TOTAL OUTAGES (A+B)
POWERGRID	373	240	150	90	71%	29%	63%	38%	613
UPPTCL	257	185	95	90	73%	27%	51%	49%	442
RRVPNL	71	72	16	56	82%	18%	22%	78%	143
HVPNL	54	36	18	18	75%	25%	50%	50%	90
BBMB	41	33	13	20	76%	24%	39%	61%	74
PSTCL	94	46	11	35	90%	10%	24%	76%	140
DTL	49	20	6	14	89%	11%	30%	70%	69
PTCUL	6	10	2	8	75%	25%	20%	80%	16
HPPTCL	12	2	0	2	100%	0%	0%	100%	14
NTPC	2	4	4	0	33%	67%	100%	0%	6
PDD JK	9	8	6	2	60%	40%	75%	25%	17
ATIL	2	1	1	0	67%	33%	100%	0%	3
NRSS36	6	22	22	0	21%	79%	100%	0%	28
Adani	1	5	4	1	20%	80%	80%	20%	6

## OUTAGE SUMMARY OF LAST FOUR MONTHS

MONTH	PLANNED	FORCED OUTAGES	EMERGENCY SHUTDOWNS	TRIPPING	% PLANNED as of total S/D	% EMERGENCY SHUTDOWNS as of total S/D	TOTAL OUTAGES
	(A)	(B=C+D)	(C)	(D)	(A/(A+C))	(C/(A+C))	(A+B)
Sep-25	1000	1189	529	660	65.40%	34.60%	2189
Oct-25	924	794	421	373	68.70%	31.30%	1718
Nov-25	1411	564	334	230	80.86%	19.14%	1975
Dec-25	1217	770	396	374	75.45%	24.55%	1987

## New Elements First Time Charged During Dec 2025

S. No.	Type of transmission element	Total No
1	AC/Lilo Lines	11
2	Antitheft Charging	02
3	Transformer	07
4	Solar plant	05
5	Bus Reactors	05
6	Harmonic filter	02
<b>Total New Elements charged</b>		<b>32</b>

## AC Lines

S.No	Name of element	Owner	Voltage Level (in kV)	Circuit No	Line Length	Conductor Type	Actual date of charging
1	220kV Sonipat(PG)-Pocket-A, IMT Kharkhoda (HR)-1	HVPNL	220kV	1	21	MOOSE	02-Dec-2025
2	220kV Sonipat(PG)-Pocket-A, IMT Kharkhoda (HR)-2	HVPNL	220kV	2	21	Moose	02-Dec-2025
3	765kV Khetri (PKTSL)-Narela(PNTL)-1	PNTL	765kV	1	170	Hexa Zebra	03-Dec-2025
4	765kV Khetri (PKTSL)-Narela(PNTL)-2	PNTL	765kV	2	170	Hexa Zebra	03-Dec-2025
5	400kV Rishikesh(UK)-Koteshwar(PG)-1	NRSS36	400kV	1	38.5	HTLS	08-Dec-2025
6	400kV Rishikesh(UK)-Koteshwar(PG)-2	NRSS36	400kV	2	38.5	HTLS	08-Dec-2025
7	220kV Renew_Dinkar_UPL_SL_Bik2-Bikaner_2 (PBTSL)-1	Renew Dinkar_UPL	220kV	1	5.669	AL59 Moose	29-Dec-2025
8	66kV Kargil(PG)-Mangbore(LPDD)-1	LPDD	66kV	1	1.7	DOG	31-Dec-2025

## Lilo Lines Charging

S.No	Name of element	Name of Line to be LILOed	Line Length of New Line after LILO (In Km)	LILO Portion Line Length (In Km)	Conductor Type	Agency/Owner	Actual date of charging
1	400kV Kishtwar(GIS)-Kishenpur(PG)-2(After LILO of 400 kV Kishenpur Dhulasti (NHPC)Line-02 at 400kV Kishtwar(GIS))	400 kV Kishenpur Dhulasti (NHPC)Line-02(120KM)	1.47	1.47	Twin Moose	KwTL	03-Dec-2025
2	400kV Dulhasti(NH)-Kishtwar(GIS)-1(After LILO of 400kV Kishenpur-Dulhasti(NHPC) Line 02 at Kishtwar(GIS) )	400kV Kishenpur-Dulhasti(NHPC) Line 02(120KM)	2.47	1.47	Quad Moose	KwTL	04-Dec-2025
3	132kV Chandoli(UP)-Karamnasa(BS)-2(After LILO of 132 KV SAHUPURI-KARAMNASA CKT-II at 132 KV CHANDAULI)	132 KV SAHUPURI-KARAMNASA CKT-II(38KM)	20.34	2.94	Panther	UPPTCL	07-Dec-2025

## Antitheft Charging

S.No	Name of element	Voltage Level (in kV)	Line to be charged upto	Line Length (In Km)	Conductor Type	Agency/Owner	Actual date of charging
1	Antitheft charging of 765kV Bhadla_2 (PG)-Sikar_2(PSTL) CKT-3 from Bhadla_2 (PG)	765kV	220 KM	313	Hexa Zebra	PBSTL	13-Dec-2025
2	Antitheft charging of 765kV Bhadla_2 (PG)-Sikar_2(PSTL) CKT-4 from Bhadla_2 (PG)	765kV	220 KM	313	Hexa Zebra	PBSTL	13-Dec-2025

## Transformer

S.No	Name of element	Owner	Voltage Level (HV/LV/Tertiary)	MVA Capacity	HV Station	Transformer Details	OLD MVA Capacity	Actual date of charging
1	400/220/33kV, 500 MVA, 3-Phase, CG POWER AND INDUSTRIAL SOLUTIONS LTD., ICT - 4 at Fatehgarh_IV(F4TL)	F4TL	400/220/33kV	500	Fatehgarh_IV(F4TL)	New	NA	05-Dec-2025
2	400/220/33kV, 500 MVA, 3-Phase, CG POWER INDUSTRIAL SOLUTIONS LTD, ICT - 5 at Fatehgarh_IV(F4TL)	F4TL	400/220/33kV	500	Fatehgarh_IV(F4TL)	New	NA	05-Dec-2025
3	400/220/33kV, 500 MVA, 3-Phase, Kanohar Electricals Ltd., ICT - 5 at Heerapura(RS)	RRVPL	400/220/33kV	500	Heerapura(RS)	New	NA	09-Dec-2025
4	400/132/33kV, 200 MVA, 3x1-Phase, SSE, ICT - 2 at Kishtwar(GIS)	KwTL	400/132/33kV	200	Kishtwar(GIS)	New	NA	19-Dec-2025
5	400/220/33kV, 500 MVA, 3-Phase, Toshiba , ICT - 8 at Fatehgarh_III(PG)	PRTL	400/220/33kV	500	Fatehgarh_III(PG)	New	NA	29-Dec-2025
6	220/33kV, 210 MVA, 3-Phase, INDO TECH TRANSFORMERS LIMITED, Power Transformer - 1 at Renew_Dinkar_UPL_SL_Bik2	Renew Dinkar_UPL	220/33kV	210	Renew_Dinkar_UPL_SL_Bik2	New	NA	29-Dec-2025
7	220/66/11kV, 50 MVA, 3x1-Phase, Technical Associates Ltd., ICT - 2 at Drass(PG)	LPDD	220/66/11kV	50	Drass(PG)	New	NA	25-Dec-25

## Solar plants

S.No	Plant Name	Pooling Sub-station	Added Capacity (MW)	Total Capacity Charged(MW)	Total Installed Capacity of Plant(MW)	Type of RE	Total No. of Solar ICR/Block Charged	Agency/ Owner	Actual date of charging
1	SJVN Green Energy Ltd	Bikaner-II	169.3	1000*	1000	Solar	8	SJVNGEL_BKN2	17-Dec-2025
2	AMBUJA CEMENTS LIMITED(ACL)	Bhadla	150	300	300	Solar	13	AMBUJA_CL	20-Dec-2025
3	ABC RENEWABLE ENERGY (RJ02) PRIVATE LIMITED(ARERJ02PL)	Fatehgarh_III	234.75	375	400	Solar	14	ARERJ02PL	29-Dec-2025
4	Renew Dinkar Urja Private Limited (RDUPL)	Bikaner-II	147	147	200	Solar	21	Renew Dinkar_UPL	30-Dec-2025
5	JUNIPER GREEN COSMIC PRIVATE LIMITED	Bikaner-II	25MW BESS	100MW Solar +25MW BESS	100MW Solar +25MW BESS	Hybrid	BESS	JUNIPER GREEN COSMIC PRIVATE LIMITED	04-Dec-25

## Bus Reactors

S.No	Name of element	Owner	Voltage Level	MVAR Capacity	Bus Reactor Details	OLD MVAR Capacity	Actual date of charging
1	765kV, 330 Bus Reactor 2 at DAUSA(PBDTL)	PB_DAUSA_T L	765kV	330	New	NA	02-Dec-2025
2	400kV, 125 MVAR Bus Reactor Bus Reactor - 02 at Fatehgarh_IV(F4TL)	F4TL	400kV	125	New	NA	04-Dec-2025
3	400kV, 125 MVAR Bus Reactor Bus Reactor - 01 at Fatehgarh_IV(F4TL)	F4TL	400kV	125	New	NA	04-Dec-2025
4	765kV, 765 kV 3x110 MVAR Bus Reactor-1 Bus Reactor at DAUSA(PBDTL)	PB_DAUSA_T L	765kV	330	New	NA	23-Dec-2025
5	765kV, 330 MVAR Bus Reactor 1 at Fatehgarh_III(PG)	PRTL	765kV	330	New	NA	30-Dec-2025

## Harmonic Filters

S.No	Name of element	Owner	Voltage Level (in kV)	Type of Capacitor	Capacitor Bank No	Sub Capacitor Bank MVAR Rating	Capacitor MVAR Rating	Actual date of charging
1	33kV, 7.5MVAR, Capacitor bank no-2 at Renew_Dinkar_UPL_SL_Bik2	Renew Dinkar_UPL	33kV	Harmonic Filter Capacitor Bank	2	7.5 MVAR(2.5 MVA <sub>r</sub> per phase -5th Order)	7.5	30-Dec-2025
2	33kV, 7.5MVAR, Capacitor bank no-1 at Renew_Dinkar_UPL_SL_Bik2	Renew Dinkar_UPL	33kV	Harmonic Filter Capacitor Bank	1	7.5 MVAR(2.5 MVA <sub>r</sub> per phase -5th Order)	7.5	30-Dec-2025

